



114

# SEQUENCE LISTING

<110> Mezes et al.

<120> Proteins and Nucleic Acids Encoding Same

<130> 21402-240

<140> 10/044,564

<141> 2002-01-11

<150> 60/261,014

<151> 2001-01-11

<150> 60/261,018

<151> 2001-01-11

<150> 60/318,410

<151> 2001-09-10

<150> 60/261,013

<151> 2001-01-11

<150> 60/261,026

<151> 2001-01-11

<150> 60/261,029

<151> 2001-01-11

<150> 60/313,170

<151> 2001-08-17

<160> 306

<170> PatentIn Ver. 2.1

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<211> 1887

<212> DNA

<213> Homo sapiens

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<212> PRT
<213> Homo sapiens

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Pro Leu Glu Ala Pro Lys Cys Ala Pro Gly Val Gly Leu Val Arg Asp
      35             40             45

Gly Cys Gly Cys Cys Lys Val Cys Ala Lys Gln Leu Asn Glu Asp Cys
      50             55             60

Ser Lys Thr Gln Pro Cys Asp His Thr Lys Gly Leu Glu Cys Asn Phe
      65             70             75             80

Gly Ala Ser Ser Thr Ala Leu Lys Gly Ile Cys Arg Ala Gln Ser Glu
      85             90             95

Gly Arg Pro Cys Glu Tyr Asn Ser Arg Ile Tyr Gln Asn Gly Glu Ser
      100            105            110

Phe Gln Pro Asn Cys Lys His Gln Cys Thr Cys Ile Asp Gly Ala Val
      115            120            125

Gly Cys Ile Pro Leu Cys Pro Gln Glu Leu Ser Leu Pro Asn Leu Gly
      130            135            140

Cys Pro Asn Pro Arg Leu Val Lys Val Thr Gly Gln Cys Cys Glu Glu
      145            150            155            160

Trp Val Cys Asp Glu Asp Ser Ile Lys Asp Pro Met Glu Asp Gln Asp
      165            170            175

Gly Leu Leu Gly Lys Glu Leu Gly Phe Asp Ala Ser Glu Val Glu Leu
      180            185            190

Thr Arg Asn Asn Glu Leu Ile Ala Val Gly Lys Gly Ser Ser Leu Lys
      195            200            205

Arg Ile Pro Val Phe Gly Met Glu Pro Arg Ile Arg Tyr Asn Pro Leu
      210            215            220

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 260 265 270  
 Gly Gln Pro Val Tyr Ser Ser Leu Lys Lys Gly Lys Lys Cys Ser Lys  
 275 280 285  
 Thr Lys Lys Ser Pro Glu Pro Val Arg Phe Thr Tyr Ala Gly Cys Leu  
 290 295 300  
 Ser Val Lys Lys Tyr Arg Pro Lys Tyr Cys Gly Ser Cys Val Asp Gly  
 305 310 315 320  
 Arg Cys Cys Thr Pro Gln Leu Thr Arg Thr Val Lys Met Arg Phe Arg  
 325 330 335  
 Cys Glu Asp Gly Glu Thr Phe Ser Lys Asn Val Met Met Ile Gln Ser  
 340 345 350  
 Cys Lys Cys Asn Tyr Asn Cys Pro His Ala Asn Glu Ala Ala Phe Pro  
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 <212> PRT  
 <213> Homo sapiens

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          20              25              30

Arg Thr Leu Ala Gly Glu Thr Gly Thr Glu Ser Ala Pro Leu Gly Gly
      35              40              45

Val Leu Thr Thr Pro His Asn Ile Ser Ser Leu Ser Pro Arg Gln Leu
      50              55              60

Leu Gly Phe Pro Cys Ala Glu Val Ser Gly Leu Ser Thr Glu Arg Val
      65              70              75              80

Arg Glu Leu Ala Val Ala Leu Ala Gln Lys Asn Val Lys Leu Ser Thr
          85              90              95

Glu Gln Leu Arg Cys Leu Ala His Arg Leu Ser Glu Pro Pro Glu Asp
      100              105              110

Leu Asp Ala Leu Pro Leu Asp Leu Leu Leu Phe Leu Asn Pro Asp Ala
      115              120              125

Phe Ser Gly Pro Gln Ala Cys Thr Arg Phe Phe Ser Arg Ile Thr Lys
      130              135              140

Ala Asn Val Asp Leu Leu Pro Arg Gly Ala Pro Glu Arg Gln Arg Leu
      145              150              155              160

Leu Pro Ala Ala Leu Ala Cys Trp Gly Val Arg Gly Ser Leu Leu Ser
          165              170              175

Glu Ala Asp Val Arg Ala Leu Gly Gly Leu Ala Cys Asp Leu Pro Gly
      180              185              190

Arg Phe Val Ala Glu Ser Ala Glu Val Leu Leu Pro Arg Leu Val Ser
      195              200              205

Cys Pro Gly Pro Leu Asp Gln Asp Gln Gln Glu Ala Ala Arg Ala Ala
      210              215              220

Leu Gln Gly Gly Gly Pro Pro Tyr Gly Pro Pro Ser Thr Trp Ser Val

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Ser Ser Arg Asp	Pro Ser Trp Arg	Gln Pro Glu Arg	Thr Ile Leu Arg			
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Pro Arg Phe Arg	Arg Glu Val Glu	Lys Thr Ala Cys	Pro Ser Gly Lys			
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Lys Ala Arg Glu	Ile Asp Glu Ser	Leu Ile Phe Tyr	Lys Lys Trp Glu			
305		310		315		320
Leu Glu Ala Cys	Val Asp Ala Ala	Leu Leu Ala Thr	Gln Met Asp Arg			
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Val Asn Ala Ile	Pro Phe Thr Tyr	Glu Gln Leu Asp	Val Leu Lys His			
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Lys Leu Asp Glu	Leu Tyr Pro Gln	Gly Tyr Pro Glu	Ser Val Ile Gln			
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His Leu Gly Tyr	Leu Phe Leu Lys	Met Ser Pro Glu	Asp Ile Arg Lys			
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Trp Asn Val Thr	Ser Leu Glu Thr	Leu Lys Ala Leu	Leu Glu Val Asp			
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Lys Gly His Glu	Met Ser Pro Gln	Ala Pro Arg Arg	Pro Leu Pro Gln			
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Val Ala Thr Leu	Ile Asp Arg Phe	Val Lys Gly Arg	Gly Gln Leu Asp			
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Lys Asp Thr Leu	Asp Thr Leu Thr	Ala Phe Tyr Pro	Gly Tyr Leu Cys			
	435		440		445	
Ser Leu Ser Pro	Glu Glu Leu Ser	Ser Val Pro Pro	Ser Ser Ile Trp			
	450		455		460	
Ala Val Arg Pro	Gln Asp Leu Asp	Thr Cys Asp Pro	Arg Gln Leu Asp			
465		470		475		480
Val Leu Tyr Pro	Lys Ala Arg Leu	Ala Phe Gln Asn	Met Asn Gly Ser			
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Glu Tyr Phe Val	Lys Ile Gln Ser	Phe Leu Gly Gly	Ala Pro Thr Glu			
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Asp Leu Lys Ala	Leu Ser Gln Gln	Asn Val Ser Met	Asp Leu Ala Thr			
	515		520		525	
Phe Met Lys Leu	Arg Thr Asp Ala	Val Leu Pro Leu	Thr Val Ala Glu			
	530		535		540	
Val Gln Lys Leu	Leu Gly Pro His	Val Glu Gly Leu	Lys Ala Glu Glu			
545		550		555		560

Arg His Arg Pro Val Arg Asp Trp Ile Leu Arg Gln Arg Gln Asp Asp  
565 570 575

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Leu Val Leu Asp Leu Ser Val Gln Glu Thr Leu Ser Gly Thr Pro Cys  
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610 615 620

Ser Thr Leu Ala  
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<213> Homo sapiens

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<210> 6  
<211> 114  
<212> PRT  
<213> Homo sapiens

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Gly Leu Ile Ala Val Ala Val Phe Leu Val Leu Val Ala Ile Ala Phe  
35 40 45

Ala Val Asn His Phe Trp Cys Gln Glu Glu Pro Glu Pro Ala His Met  
50 55 60

Ile Leu Thr Val Gly Asn Lys Ala Asp Gly Val Leu Val Gly Thr Asp  
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Gly Arg Tyr Ser Ser Met Ala Ala Ser Phe Arg Ser Ser Glu His Glu  
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Pro Met

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 <211> 527  
 <212> DNA  
 <213> Homo sapiens

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<210> 8  
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 35 40 45  
 Glu Gly Pro Ile Ala Leu Lys Phe Ser His Leu Cys Leu Glu Asp His  
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 Asn Ser Tyr Cys Ile Asn Gly Ala Cys Ala Phe His His Glu Leu Glu  
 65 70 75 80  
 Lys Ala Ile Cys Arg Cys Phe Thr Gly Tyr Thr Gly Glu Arg Cys Glu  
 85 90 95  
 His Leu Thr Leu Thr Ser Tyr Ala Val Asp Ser Tyr Glu Lys Tyr Ile  
 100 105 110  
 Ala Ile Gly Ile Gly Val Gly Leu Leu Leu Ser Gly Phe Leu Val Ile  
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 Phe Tyr Cys Tyr Ile Arg Lys Arg Cys Leu Lys Leu Lys Ser Pro Tyr  
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 <213> Homo sapiens

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 Trp Val Gly Phe Ala Phe Arg Asn Pro Pro Gly Thr Gln Pro Ile Ala  
 35 40 45  
 Arg Ser Glu Val Phe Arg Tyr Ser Leu Gln Lys Leu Ala Tyr Thr Val  
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 65 70 75 80  
 Asn

<210> 11  
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 <212> DNA  
 <213> Homo sapiens

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<222> (599)

<223> Where n is G or A or T or C

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gaaatcaact gggtttgaaa ctctggtggt gacctccgaa gatggcatca caaagatcat 420
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<210> 12

<211> 205

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (184)

<223> Where Xaa is any amino acid as defined in the  
specification

<400> 12

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          20                      25                      30

Leu Lys Leu Tyr Ala Leu Tyr Lys Gln Ala Thr Glu Gly Pro Cys Asn
  35                      40                      45

Met Pro Lys Pro Gly Val Phe Asp Leu Ile Asn Lys Ala Lys Trp Asp
  50                      55                      60

Ala Trp Asn Ala Leu Gly Ser Leu Pro Lys Glu Ala Ala Arg Gln Asn
  65                      70                      75                      80

Tyr Val Asp Leu Val Ser Ser Leu Ser Pro Ser Leu Glu Ser Ser Ser
          85                      90                      95

Gln Val Glu Pro Gly Thr Asp Arg Lys Ser Thr Gly Phe Glu Thr Leu
  100                      105                      110

Val Val Thr Ser Glu Asp Gly Ile Thr Lys Ile Met Phe Asn Arg Pro
  115                      120                      125

Lys Lys Lys Asn Ala Ile Asn Thr Glu Met Tyr His Glu Ile Met Arg
  130                      135                      140

Ala Leu Lys Ala Ala Ser Lys Asp Asp Ser Ile Ile Thr Val Leu Thr
  145                      150                      155                      160

Gly Asn Gly Asp Tyr Tyr Ser Ser Gly Asn Asp Leu Thr Asn Phe Thr
  165                      170                      175
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Asp Ile Pro Pro Gly Gly Val Xaa Glu Lys Ala Lys Asn Asn Ala Val  
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Leu Leu Lys Gly Ile Cys Gly Leu Phe Tyr Arg Ile Ser  
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 <212> DNA  
 <213> Homo sapiens

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 gccaacagct cccccgtggc ctccaccacc cegtcgcct cagccaccac caaccccgcc 240  
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 aaacccgatt cctaccaggt gacgctgaga ccgtacctca cccccaatga caggggctgt 360  
 tacgttttta agggctccag caccgtccgt ttcaacctga aggaggccac tgacgtcatc 420  
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 ggtgtgggag gctcccagcc ccccgacatt gacaagactg agctgggtga gccaccgag 540  
 tacctggtgg tgcacctcaa gggctccctg gtgaaggaca gccagtatga gatggacagc 600  
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 <211> 967  
 <212> PRT  
 <213> Homo sapiens

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                     20                    25                    30  
 Tyr Ser Gln Glu Lys Asn Lys Asn Ala Asn Ser Ser Pro Val Ala Ser  
                     35                    40                    45  
 Thr Thr Pro Ser Ala Ser Ala Thr Thr Asn Pro Ala Ser Ala Thr Thr  
                     50                    55                    60  
 Leu Asp Gln Ser Lys Ala Trp Asn Arg Tyr Arg Leu Pro Asn Thr Leu  
                     65                    70                    75                    80  
 Lys Pro Asp Ser Tyr Gln Val Thr Leu Arg Pro Tyr Leu Thr Pro Asn  
                     85                    90                    95  
 Asp Arg Gly Leu Tyr Val Phe Lys Gly Ser Ser Thr Val Arg Phe Thr  
                     100                    105                    110  
 Cys Lys Glu Ala Thr Asp Val Ile Ile Ile His Ser Lys Lys Leu Asn  
                     115                    120                    125  
 Tyr Thr Leu Ser Gln Gly His Arg Val Val Leu Arg Gly Val Gly Gly  
                     130                    135                    140  
 Ser Gln Pro Pro Asp Ile Asp Lys Thr Glu Leu Val Glu Pro Thr Glu  
                     145                    150                    155                    160  
 Tyr Leu Val Val His Leu Lys Gly Ser Leu Val Lys Asp Ser Gln Tyr  
                     165                    170                    175  
 Glu Met Asp Ser Glu Phe Glu Gly Glu Leu Ala Asp Asp Leu Ala Gly  
                     180                    185                    190  
 Phe Tyr Arg Ser Glu Tyr Met Glu Gly Asn Val Arg Lys Val Val Ala  
                     195                    200                    205  
 Thr Thr Gln Met Gln Ala Ala Asp Ala Arg Lys Ser Phe Pro Cys Phe  
                     210                    215                    220  
 Asp Glu Pro Ala Met Lys Ala Glu Phe Asn Ile Thr Leu Ile His Pro  
                     225                    230                    235                    240  
 Lys Asp Leu Thr Ala Leu Ser Asn Met Leu Pro Lys Gly Pro Ser Thr  
                     245                    250                    255  
 Pro Leu Pro Glu Asp Pro Asn Trp Asn Val Thr Glu Phe His Thr Thr  
                     260                    265                    270

Pro Lys Met Ser Thr Tyr Leu Leu Ala Phe Ile Val Ser Glu Phe Asp  
 275 280 285  
 Tyr Val Glu Lys Gln Ala Ser Asn Gly Val Leu Ile Arg Ile Trp Ala  
 290 295 300  
 Arg Pro Ser Ala Ile Ala Ala Gly His Gly Asp Tyr Ala Leu Asn Val  
 305 310 315 320  
 Thr Gly Pro Ile Leu Asn Phe Phe Ala Gly His Tyr Asp Thr Pro Tyr  
 325 330 335  
 Pro Leu Pro Lys Ser Asp Gln Ile Gly Leu Pro Asp Phe Asn Ala Gly  
 340 345 350  
 Ala Met Glu Asn Trp Gly Leu Val Thr Tyr Arg Glu Asn Ser Leu Leu  
 355 360 365  
 Phe Asp Pro Leu Ser Ser Ser Ser Ser Asn Lys Glu Arg Val Val Thr  
 370 375 380  
 Val Ile Ala His Glu Leu Ala His Gln Trp Phe Gly Asn Leu Val Thr  
 385 390 395 400  
 Ile Glu Trp Trp Asn Asp Leu Trp Leu Asn Glu Gly Phe Ala Ser Tyr  
 405 410 415  
 Val Glu Tyr Leu Gly Ala Asp Tyr Ala Glu Pro Thr Trp Asn Leu Lys  
 420 425 430  
 Asp Leu Met Val Leu Asn Asp Val Tyr Arg Val Met Ala Val Asp Ala  
 435 440 445  
 Leu Ala Ser Ser His Pro Leu Ser Thr Pro Ala Ser Glu Ile Asn Thr  
 450 455 460  
 Pro Ala Gln Ile Ser Glu Leu Phe Asp Ala Ile Ser Tyr Ser Lys Gly  
 465 470 475 480  
 Ala Ser Val Leu Arg Met Leu Ser Ser Phe Leu Ser Glu Asp Val Phe  
 485 490 495  
 Lys Gln Gly Leu Ala Ser Tyr Leu His Thr Phe Ala Tyr Gln Asn Thr  
 500 505 510  
 Ile Tyr Leu Asn Leu Trp Asp His Leu Gln Glu Ala Val Asn Asn Arg  
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 Ser Ile Gln Leu Pro Thr Thr Glu Arg Asp Ile Met Asn Arg Trp Thr  
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 Leu Gln Met Gly Phe Pro Val Ile Thr Val Asp Thr Ser Thr Gly Thr  
 545 550 555 560  
 Leu Ser Gln Glu His Phe Leu Leu Asp Pro Asp Ser Asn Val Thr Arg  
 565 570 575  
 Pro Ser Glu Phe Asn Tyr Val Trp Ile Val Pro Ile Thr Ser Ile Arg  
 580 585 590  
 Asp Gly Arg Gln Gln Gln Asp Tyr Trp Leu Met Asp Val Arg Ala Gln  
 595 600 605



Asn Asp Leu Phe Ser Thr Ser Gly Asn Glu Trp Val Leu Leu Asn Leu  
 610 615 620  
 Asn Val Thr Gly Tyr Tyr Arg Val Asn Tyr Asp Glu Glu Asn Trp Arg  
 625 630 635 640  
 Lys Ile Gln Thr Gln Leu Gln Arg Asp His Ser Ala Ile Pro Val Ile  
 645 650 655  
 Asn Arg Ala Gln Ile Ile Asn Asp Ala Phe Asn Leu Ala Ser Ala His  
 660 665 670  
 Lys Val Pro Val Thr Leu Ala Leu Asn Asn Thr Leu Phe Leu Ile Glu  
 675 680 685  
 Glu Arg Gln Tyr Met Pro Trp Glu Ala Ala Leu Ser Ser Leu Ser Tyr  
 690 695 700  
 Phe Lys Leu Met Phe Asp Arg Ser Glu Val Tyr Gly Pro Met Lys Asn  
 705 710 715 720  
 Tyr Leu Lys Lys Gln Val Thr Pro Leu Phe Ile His Phe Arg Asn Asn  
 725 730 735  
 Thr Asn Asn Trp Arg Glu Ile Pro Glu Asn Leu Met Asp Gln Tyr Ser  
 740 745 750  
 Glu Val Asn Ala Ile Ser Thr Ala Cys Ser Asn Gly Val Pro Glu Cys  
 755 760 765  
 Glu Glu Met Val Ser Gly Leu Phe Lys Gln Trp Met Glu Asn Pro Asn  
 770 775 780  
 Asn Asn Pro Ile His Pro Asn Leu Arg Ser Thr Val Tyr Cys Asn Ala  
 785 790 795 800  
 Ile Ala Gln Gly Gly Glu Glu Glu Trp Asp Phe Ala Trp Glu Gln Phe  
 805 810 815  
 Arg Asn Ala Thr Leu Val Asn Glu Ala Asp Lys Leu Arg Ala Ala Leu  
 820 825 830  
 Ala Cys Ser Lys Glu Leu Trp Ile Leu Asn Arg Tyr Leu Ser Tyr Thr  
 835 840 845  
 Leu Asn Pro Asp Leu Ile Arg Lys Gln Asp Ala Thr Ser Thr Ile Ile  
 850 855 860  
 Ser Ile Thr Asn Asn Val Ile Gly Gln Gly Leu Val Trp Asp Phe Val  
 865 870 875 880  
 Gln Ser Asn Trp Lys Lys Pro Phe Asn Asp Tyr Gly Gly Gly Ser Phe  
 885 890 895  
 Ser Phe Ser Asn Leu Ile Gln Ala Val Thr Arg Arg Phe Ser Thr Glu  
 900 905 910  
 Tyr Glu Leu Gln Gln Leu Glu Gln Phe Lys Lys Asp Asn Glu Glu Thr  
 915 920 925  
 Gly Phe Gly Ser Gly Thr Arg Ala Leu Glu Gln Ala Leu Glu Lys Thr

930

935

940

Lys Ala Asn Ile Lys Trp Val Lys Glu Asn Lys Glu Val Val Leu Gln  
 945 950 955 960

Trp Phe Thr Glu Asn Ser Lys  
 965

&lt;210&gt; 15

&lt;211&gt; 398

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 15

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 caccaccaag gagggtcaaca accggggctg ctgctttgac tccaggatcc ctggagtgcc 180  
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 cccttgggat gcaggctgag cacccttgcc cggtgtgat tgctgccagg cactgttcat 300  
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 ctgatgtctt aacgaataaa ggtcccctgc tccaccgc 398

&lt;210&gt; 16

&lt;211&gt; 74

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 16

Met Leu Gly Leu Val Leu Ala Leu Leu Ser Ser Ser Ser Ala Glu Glu  
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Tyr Val Gly Leu Ser Ala Asn Gln Cys Ala Val Pro Ala Lys Asp Arg  
 20 25 30

Val Asp Cys Gly Tyr Pro His Val Thr Pro Lys Glu Cys Asn Asn Arg  
 35 40 45

Gly Cys Cys Phe Asp Ser Arg Ile Pro Gly Val Pro Trp Cys Phe Lys  
 50 55 60

Pro Leu Thr Arg Lys Thr Glu Cys Thr Phe  
 65 70

&lt;210&gt; 17

&lt;211&gt; 1192

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 17

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<210> 18  
 <211> 313  
 <212> PRT  
 <213> Homo sapiens

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<400> 18
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      20                      25                      30

Val Asn Ala Asp Gly Gln Tyr Leu Phe Cys Arg Tyr Trp Lys Pro Thr
      35                      40                      45

Gly Thr Pro Lys Ala Leu Ile Phe Val Ser His Gly Ala Gly Glu His
      50                      55                      60

Ser Gly Arg Tyr Glu Glu Leu Ala Arg Met Leu Met Gly Leu Asp Leu
      65                      70                      75                      80

Leu Val Phe Ala His Asp His Val Gly His Gly Gln Ser Glu Gly Glu
      85                      90                      95

Arg Met Val Val Ser Asp Phe His Val Phe Val Arg Asp Val Leu Gln
      100                     105                     110

His Val Asp Ser Met Gln Lys Asp Tyr Pro Gly Leu Pro Val Phe Leu
      115                     120                     125

Leu Gly His Ser Met Gly Gly Ala Ile Ala Ile Leu Thr Ala Ala Glu
      130                     135                     140

Arg Pro Gly His Phe Ala Gly Met Val Leu Ile Ser Pro Leu Val Leu
      145                     150                     155                     160

Ala Asn Pro Glu Ser Ala Thr Thr Phe Lys Val Leu Ala Ala Lys Val
      165                     170                     175

Leu Asn Leu Val Leu Pro Asn Leu Ser Leu Gly Pro Ile Asp Ser Ser
      180                     185                     190

Val Leu Ser Arg Asn Lys Thr Glu Val Asp Ile Tyr Asn Ser Asp Pro
      195                     200                     205

Leu Ile Cys Arg Ala Gly Leu Lys Val Cys Phe Gly Ile Gln Leu Leu
      210                     215                     220

Asn Ala Val Ser Arg Val Glu Arg Ala Leu Pro Lys Leu Thr Val Pro
      225                     230                     235                     240

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Phe Leu Leu Leu Gln Gly Ser Ala Asp Arg Leu Cys Asp Ser Lys Gly  
245 250 255

Ala Tyr Leu Leu Met Glu Leu Ala Lys Ser Gln Asp Lys Thr Leu Lys  
260 265 270

Ile Tyr Glu Gly Ala Tyr His Val Leu His Lys Glu Leu Pro Glu Val  
275 280 285

Thr Asn Ser Val Phe His Glu Ile Asn Met Trp Val Ser Gln Arg Thr  
290 295 300

Ala Thr Ala Gly Thr Ala Ser Pro Pro  
305 310

<210> 19

<211> 1104

<212> DNA

<213> Homo sapiens

<400> 19

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<210> 20

<211> 312

<212> PRT

<213> Homo sapiens

<400> 20

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20 25 30

Asn Tyr Pro Cys Leu Val Pro Val Lys Trp Gly Gly Asn Cys Gln Lys  
35 40 45

Asp Arg Gln Ser Pro Ile Asn Ile Val Thr Thr Lys Ala Lys Val Asp  
50 55 60

Lys Lys Leu Gly Arg Phe Phe Phe Ser Gly Tyr Asp Lys Lys Gln Thr  
 65 70 75 80  
 Trp Thr Val Gln Asn Asn Gly His Ser Val Met Met Leu Leu Glu Asn  
 85 90 95  
 Lys Ala Ser Ile Ser Gly Gly Gly Leu Pro Ala Pro Tyr Gln Ala Lys  
 100 105 110  
 Gln Leu His Leu His Trp Ser Asp Leu Pro Tyr Lys Gly Ser Glu His  
 115 120 125  
 Ser Leu Asp Gly Glu His Phe Ala Met Glu Met His Ile Val His Glu  
 130 135 140  
 Lys Glu Lys Gly Thr Ser Arg Asn Val Lys Glu Ala Gln Asp Pro Glu  
 145 150 155 160  
 Asp Glu Ile Ala Val Leu Ala Phe Leu Val Glu Ala Gly Thr Gln Val  
 165 170 175  
 Asn Glu Gly Phe Gln Pro Leu Val Glu Ala Leu Ser Asn Ile Pro Lys  
 180 185 190  
 Pro Glu Met Ser Thr Thr Met Ala Glu Ser Ser Leu Leu Asp Leu Leu  
 195 200 205  
 Pro Lys Glu Glu Lys Leu Arg His Tyr Phe Arg Tyr Leu Gly Ser Leu  
 210 215 220  
 Thr Thr Pro Thr Cys Asp Glu Lys Val Val Trp Thr Val Phe Arg Glu  
 225 230 235 240  
 Pro Ile Gln Leu His Arg Glu Gln Ile Leu Ala Phe Ser Gln Lys Leu  
 245 250 255  
 Tyr Tyr Asp Lys Glu Gln Thr Val Ser Met Lys Asp Asn Val Arg Pro  
 260 265 270  
 Leu Gln Gln Leu Gly Gln Arg Thr Val Ile Lys Ser Gly Ala Pro Gly  
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 Arg Pro Leu Pro Trp Ala Leu Pro Ala Leu Leu Gly Pro Met Leu Ala  
 290 295 300  
 Cys Leu Leu Ala Gly Phe Leu Arg  
 305 310

<210> 21  
 <211> 2814  
 <212> DNA  
 <213> Homo sapiens

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 <223> Where n is G or A or T or C

<220>  
 <221> misc\_feature  
 <222> (3)

<223> Where n is G or A or T or C

<400> 21

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<212> PRT

<213> Homo sapiens

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Arg His Met Pro Trp Asn Ile Thr Arg Met Pro Asn His Leu His His
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Ser Thr Gln Glu Asn Ala Ile Leu Ala Ile Glu Gln Tyr Glu Glu Leu
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Val Asp Val Asn Cys Ser Ala Val Leu Arg Phe Phe Phe Cys Ala Met
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Tyr Ala Pro Ile Cys Thr Leu Glu Phe Leu His Asp Pro Ile Lys Pro

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<212> PRT

<213> Homo sapiens

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Ala Ile Ser Thr Arg Gln Tyr His Leu Gln Gln Leu Phe Tyr Arg Tyr	50	55	60
Gly Glu Asn Asn Ser Leu Ser Val Glu Gly Phe Arg Lys Leu Leu Gln	65	70	75
Asn Ile Gly Ile Asp Lys Ile Lys Arg Ile His Ile His His Asp His	85	90	95
Asp His His Ser Asp His Glu His His Ser Asp His Glu Arg His Ser	100	105	110
Asp His Glu His His Ser Glu His Glu His His Ser Asp His Asp His	115	120	125
His Ser His His Asn His Ala Ala Ser Gly Lys Asn Lys Arg Lys Ala	130	135	140
Leu Cys Pro Asp His Asp Ser Asp Ser Ser Gly Lys Asp Pro Arg Asn	145	150	155
Ser Gln Gly Lys Gly Ala His Arg Pro Glu His Ala Ser Gly Arg Arg	165	170	175
Asn Val Lys Asp Ser Val Ser Ala Ser Glu Val Thr Ser Thr Val Tyr	180	185	190
Asn Thr Val Ser Glu Gly Thr His Phe Leu Glu Thr Ile Glu Thr Pro	195	200	205
Arg Pro Gly Lys Leu Phe Pro Lys Asp Val Ser Ser Ser Thr Pro Pro	210	215	220
Ser Val Thr Ser Lys Ser Arg Val Ser Arg Leu Ala Gly Arg Lys Thr	225	230	235
Asn Glu Ser Val Ser Glu Pro Arg Lys Gly Phe Met Tyr Ser Arg Asn	245	250	255
Thr Asn Glu Asn Pro Gln Glu Cys Phe Asn Ala Ser Lys Leu Leu Thr	260	265	270
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Tyr Leu Cys Pro Ala Ile Ile Asn Gln Ile Asp Ala Arg Ser Cys Leu	290	295	300
Ile His Thr Ser Glu Lys Lys Ala Glu Ile Pro Pro Lys Thr Tyr Ser	305	310	315
Leu Gln Ile Ala Trp Val Gly Gly Phe Ile Ala Ile Ser Ile Ile Ser	325	330	335

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 Leu Gly Ala Asp Glu Ser Glu Glu Gly Arg Arg Gly Ser Leu Ser  
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 Asn Ala Gly Asp Pro Glu Ile Val Lys Ser Pro Ser Asp Pro Lys Gln  
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Glu	Asn	Thr	Ile	Ser	Gly	Tyr	Ser	Leu	Leu	Thr	Cys	Lys	Arg	Thr	Leu
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Pro	Glu	Pro	Cys	His	Ser	Lys	Ile	Tyr	Pro	Gly	Val	Asp	Phe	Gly	Gly

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Thr Cys Thr Lys Met Ile Arg Cys Gln Phe Phe Thr Tyr Ser Leu Leu 325 330 335		
Pro Glu Asp Cys Lys Glu Glu Lys Cys Lys Cys Phe Leu Arg Leu Ser 340 345 350		
Met Asp Gly Ser Pro Thr Arg Ile Ala Tyr Gly Thr Gln Gly Ser Ser 355 360 365		
Gly Tyr Ser Leu Arg Leu Cys Asn Thr Gly Asp Asn Ala Val Cys Thr 370 375 380		
Thr Lys Thr Ser Thr Arg Ile Val Gly Gly Thr Asn Ser Ser Trp Gly 385 390 395 400		
Glu Trp Pro Trp Gln Val Ser Leu Gln Val Lys Leu Thr Ala Gln Arg 405 410 415		
His Leu Cys Gly Gly Ser Leu Ile Gly His Gln Trp Val Leu Thr Ala 420 425 430		
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Ser Gly Ile Leu Asn Leu Ser Asp Ile Thr Lys Asp Thr Pro Phe Ser 450 455 460		
Gln Ile Lys Glu Ile Ile Ile His Gln Asn Tyr Lys Val Ser Glu Gly 465 470 475 480		
Asn His Asp Ile Ala Leu Ile Lys Leu Gln Ala Pro Leu Asn Tyr Thr 485 490 495		
Glu Phe Gln Lys Pro Ile Cys Leu Pro Ser Lys Gly Asp Thr Ser Thr 500 505 510		
Ile Tyr Thr Asn Cys Trp Val Thr Gly Trp Gly Phe Ser Lys Glu Lys 515 520 525		
Gly Glu Ile Gln Asn Ile Leu Gln Lys Val Asn Ile Pro Leu Val Thr 530 535 540		
Asn Glu Glu Cys Gln Lys Arg Tyr Gln Asp Tyr Lys Ile Thr Gln Arg 545 550 555 560		
Met Val Cys Ala Gly Tyr Lys Glu Gly Gly Lys Asp Ala Cys Lys Gly 565 570 575		
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 <213> Homo sapiens

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 Lys Tyr Val Arg Met Leu Gly Ala Leu Tyr Met Arg Leu Thr Gly Thr  
 100 105 110  
 Ala Ile Asp Cys Tyr Lys Tyr Leu Glu Pro Leu Tyr Asn Asp Tyr Arg  
 115 120 125  
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Ile Leu Pro Arg	Leu Gln Lys Arg Tyr	Val Leu Glu Glu Ala Glu Gln
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Leu Glu Pro Arg Val	Ser Ala Leu Glu Glu Asp	Met Asp Asp Val Glu
	180	185 190
Ser Ser Glu Glu Glu	Glu Glu Glu Asp	Glu Lys Leu Glu Arg Val Pro
	195	200 205
Ser Pro Asp His Arg	Arg Arg Ser Tyr Arg	Asp Leu Asp Lys Pro Arg
	210	215 220
Arg Ser Pro Thr Leu	Arg Tyr Arg Arg Ser	Arg Ser Arg Ser Pro Arg
	225	230 235 240
Arg Arg Ser Arg Ser	Pro Lys Arg Arg Ser	Pro Ser Pro Arg Arg Glu
	245	250 255
Arg His Arg Ser Lys	Ser Pro Arg Arg His	Arg Ser Arg Ser Arg Asp
	260	265 270
Arg Arg His Arg Ser	Arg Ser Lys Ser Pro	Gly His His Arg Ser His
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 <211> 3168  
 <212> DNA  
 <213> Homo sapiens

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<210> 34

<211> 524

<212> PRT

<213> Homo sapiens

<400> 34

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 35 40 45

Pro Leu Asp Asp Arg Lys Ala Ile Asn Asn Tyr Val Ile Asn Ser Thr  
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Asp Glu Leu Pro Thr Ile Ser Tyr Ser Met Asn Pro Lys Pro Thr Pro  
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Trp Ser Leu Ser Val Ser Ser Phe Ala Val Gly Gly Met Thr Ala Ser  
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Gly Glu Ile Ala Pro Thr Ala Leu Arg Gly Ala Leu Gly Thr Phe His  
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Gln Leu Ala Ile Val Thr Gly Ile Leu Ile Ser Gln Ile Ile Gly Leu  
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Ile Asn Glu Met Arg Lys Glu Arg Glu Glu Ala Ser Ser Glu Gln Lys  
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<210> 35  
 <211> 2184  
 <212> DNA  
 <213> Homo sapiens

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<210> 36  
 <211> 591  
 <212> PRT  
 <213> Homo sapiens

<400> 36

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Ala	Pro	Met	Cys	Thr	Asp	Gln	Val	Ser	Thr	Pro	Ile	Pro	Ala	Cys	Arg	100	105	110	
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Leu	Cys	Phe	Phe	Ser	Thr	Ala	Phe	Thr	Val	Leu	Thr	Phe	Leu	Leu	Glu	245	250	255	
Pro	His	Arg	Phe	Gln	Tyr	Pro	Glu	Arg	Pro	Ile	Ile	Phe	Leu	Ser	Met	260	265	270	
Cys	Tyr	Asn	Val	Tyr	Ser	Leu	Ala	Phe	Leu	Ile	Arg	Ala	Val	Ala	Gly	275	280	285	
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 <211> 2523  
 <212> DNA  
 <213> Homo sapiens

<400> 37

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cataaagatc atgtatatgg tattcacaat cctgttatga caagccatc acaacatctc 2520
gag 2523

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<210> 38  
 <211> 837  
 <212> PRT  
 <213> Homo sapiens

<400> 38  
 Gly Gly Gln Pro Ser Ser Thr Asp Ala Pro Lys Ala Trp Asn Tyr Glu  
 1 5 10 15  
 Leu Pro Ala Thr Asn Tyr Glu Thr Gln Asp Ser His Lys Ala Gly Pro  
 20 25 30  
 Ile Gly Ile Leu Phe Glu Leu Val His Ile Phe Leu Tyr Val Val Gln  
 35 40 45  
 Pro Arg Asp Phe Pro Glu Asp Thr Leu Arg Lys Phe Leu Gln Lys Ala  
 50 55 60

Tyr Glu Ser Lys Ile Asp Tyr Asp Lys Ile Val Tyr Tyr Glu Ala Gly  
65 70 75 80  
Ile Ile Leu Cys Cys Val Leu Gly Leu Leu Phe Ile Ile Leu Met Pro  
85 90 95  
Leu Val Gly Tyr Phe Phe Cys Met Cys Arg Cys Cys Asn Lys Cys Gly  
100 105 110  
Gly Glu Met His Gln Arg Gln Lys Glu Asn Gly Pro Phe Leu Arg Lys  
115 120 125  
Cys Phe Ala Ile Ser Leu Leu Val Ile Cys Ile Ile Ile Ser Ile Gly  
130 135 140  
Ile Phe Tyr Gly Phe Val Ala Asn His Gln Val Arg Thr Arg Ile Lys  
145 150 155 160  
Arg Ser Arg Lys Leu Ala Asp Ser Asn Phe Lys Asp Leu Arg Thr Leu  
165 170 175  
Leu Asn Glu Thr Pro Glu Gln Ile Lys Tyr Ile Leu Ala Gln Tyr Asn  
180 185 190  
Thr Thr Lys Asp Lys Ala Phe Thr Asp Leu Asn Ser Ile Asn Ser Val  
195 200 205  
Leu Gly Gly Gly Ile Leu Asp Arg Leu Arg Pro Asn Ile Ile Pro Val  
210 215 220  
Leu Asp Glu Ile Lys Ser Met Ala Thr Ala Ile Lys Glu Thr Lys Glu  
225 230 235 240  
Ala Leu Glu Asn Met Asn Ser Thr Leu Lys Ser Leu His Gln Gln Ser  
245 250 255  
Thr Gln Leu Ser Ser Ser Leu Thr Ser Val Lys Thr Ser Leu Arg Ser  
260 265 270  
Ser Leu Asn Asp Pro Leu Cys Leu Val His Pro Ser Ser Glu Thr Cys  
275 280 285  
Asn Ser Ile Arg Leu Ser Leu Ser Gln Leu Asn Ser Asn Pro Glu Leu  
290 295 300  
Arg Gln Leu Pro Pro Val Asp Ala Glu Leu Asp Asn Val Asn Asn Val  
305 310 315 320  
Leu Arg Thr Asp Leu Asp Gly Leu Val Gln Gln Gly Tyr Gln Ser Leu  
325 330 335  
Asn Asp Ile Pro Asp Arg Val Gln Arg Gln Thr Thr Thr Val Val Ala  
340 345 350  
Gly Ile Lys Arg Val Leu Asn Ser Ile Gly Ser Asp Ile Asp Asn Val  
355 360 365  
Thr Gln Arg Leu Pro Ile Gln Asp Ile Leu Ser Ala Phe Ser Val Tyr  
370 375 380  
Val Asn Asn Thr Glu Ser Tyr Ile His Arg Asn Leu Pro Thr Leu Glu

385		390		395		400
Glu Tyr Asp Ser Tyr Trp Trp Leu Gly Gly Leu Val Ile Cys Ser Leu						
		405		410		415
Leu Thr Leu Ile Val Ile Phe Tyr Tyr Leu Gly Leu Leu Cys Gly Val						
		420		425		430
Cys Gly Tyr Asp Arg His Ala Thr Pro Thr Thr Arg Gly Cys Val Ser						
		435		440		445
Asn Thr Gly Gly Val Phe Leu Met Val Gly Val Gly Leu Ser Phe Leu						
		450		455		460
Phe Cys Trp Ile Leu Met Ile Ile Val Val Leu Thr Phe Val Phe Gly						
		465		470		475
				475		480
Ala Asn Val Glu Lys Leu Ile Cys Glu Pro Tyr Thr Ser Lys Glu Leu						
		485		490		495
Phe Arg Val Leu Asp Thr Pro Tyr Leu Leu Asn Glu Asp Trp Glu Tyr						
		500		505		510
Tyr Leu Ser Gly Lys Leu Phe Asn Lys Ser Lys Met Lys Leu Thr Phe						
		515		520		525
Glu Gln Val Tyr Ser Asp Cys Lys Lys Asn Arg Gly Thr Tyr Gly Thr						
		530		535		540
Leu His Leu Gln Asn Ser Phe Asn Ile Ser Glu His Leu Asn Ile Asn						
		545		550		555
				555		560
Glu His Thr Gly Ser Ile Ser Ser Glu Leu Glu Ser Leu Lys Val Asn						
		565		570		575
Leu Asn Ile Phe Leu Leu Gly Ala Ala Gly Arg Lys Asn Leu Gln Asp						
		580		585		590
Phe Ala Ala Cys Gly Ile Asp Arg Met Asp Tyr Asp Ser Tyr Leu Ala						
		595		600		605
Gln Thr Gly Lys Ser Pro Ala Gly Val Asn Leu Leu Ser Phe Ala Tyr						
		610		615		620
Asp Leu Glu Ala Lys Ala Asn Ser Leu Pro Pro Gly Asn Leu Arg Asn						
		625		630		635
				635		640
Ser Leu Lys Arg Asp Ala Gln Thr Ile Lys Thr Ile His Gln Gln Arg						
		645		650		655
Val Leu Pro Ile Glu Gln Ser Leu Ser Thr Leu Tyr Gln Ser Val Lys						
		660		665		670
Ile Leu Gln Arg Thr Gly Asn Gly Leu Leu Glu Arg Val Thr Arg Thr						
		675		680		685
Leu Ala Ser Leu Asp Phe Ala Gln Asn Phe Ile Thr Asn Asn Thr Ser						
		690		695		700
Ser Val Ile Ile Glu Glu Thr Lys Lys Tyr Gly Arg Thr Ile Ile Gly						
		705		710		715
				715		720

Tyr Phe Glu His Tyr Leu Gln Trp Ile Glu Phe Ser Ile Ser Glu Lys  
 725 730 735  
 Val Ala Ser Cys Lys Pro Val Ala Thr Ala Leu Asp Thr Ala Val Asp  
 740 745 750  
 Val Phe Leu Cys Ser Tyr Ile Ile Asp Pro Leu Asn Leu Phe Trp Phe  
 755 760 765  
 Gly Ile Gly Lys Ala Thr Val Phe Leu Leu Pro Ala Leu Ile Phe Ala  
 770 775 780  
 Val Lys Leu Ala Lys Tyr Tyr Arg Arg Met Asp Ser Glu Asp Val Tyr  
 785 790 795 800  
 Asp Asp Val Glu Thr Ile Pro Met Lys Asn Met Glu Asn Gly Asn Asn  
 805 810 815  
 Gly Tyr His Lys Asp His Val Tyr Gly Ile His Asn Pro Val Met Thr  
 820 825 830  
 Ser Pro Ser Gln His  
 835

<210> 39  
 <211> 2363  
 <212> DNA  
 <213> Homo sapiens

<400> 39  
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 tcccagacag cagaacaata ttacatggg ggtcaggagg gtgaggttgg gtggtctcgg 120  
 ggctgagtg gcccgccact gtggaagaga ggaccctgga gggaggggtgt ccttggaacct 180  
 gtggaccggg cccaagaaga aaaacgtccc atcctcggcc cagcgtggat cccaccaccg 240  
 ggatcacctc gggccctgga ggctgcgcag cgagaagcca ccggtcagag ctgggtcacc 300  
 atgccgttg cttcggagtg agtctttatg gcctggaaga tccactcccg gaagtcactg 360  
 actttggtgt agacgcctgg cttctgggcc agggcacagc cagtgcacca actcacaatg 420  
 ccacacagcc gccaacgtgg cgtccgagag atgctgtcct cacacacaaa gggaccaccg 480  
 ctgtgcacct ggcaggcatc aatgccaccc tgggggtagc cagcacagaa catcttgggc 540  
 ttgatctggt ttccatagaa gtcagcgcca ttgcagacat cattgctgat tatggggact 600  
 cgagcctcct ggagtacccc ggcctgttgg ccatagtact gcgtgttgcc ccagcccgtc 660  
 acggtacaga tcttgccatc caccagggcc tggccggcag ctggggaggca cacaggctgg 720  
 atgtattctg tgaggggcag gggactggag aggtggacca gggcaatata gttgctgttc 780  
 tctcgtctgt tggggtccc aaagggaaga tagccccgt ggtagaccac agcctgcacc 840  
 cccagctgca gaccgtgggg agaggcctgg gccacggcac cggcaaacac tcgccatcgg 900  
 gacaggaccc ggttccgctc cgggaagcag tgggcggtg tcagcaccca gtccccggag 960  
 agcagggatc cccacagag gtgtgtcca tcatagcgaa ggctgacttg ccacggccac 1020  
 cggcccaagc tgggtgccc gctcccacg atgcggtcca cgggcagctt cctgcggcca 1080  
 cagtcttgcc agatggcgcc caagaaacgg cctctggggc aatcacacac ggagatgacc 1140  
 tccagcagcc tctgggtgtg gggcagcctc cctcgtcca cacagaagaa gcccgcagtg 1200  
 ccattggcgc ccgccgttcg cagctccagc tgggagtggg tcagtgcctt gaggaagccc 1260  
 atctcctcgc agctgagtc ggctaccctg gcgttgagc gcgaggagca cagcagccg 1320  
 cagctccctt ccgtcttgct aaagaccatg agccagcgt ccgcagagct gacctgcact 1380  
 gggtagacgc gctcctggct actcctgagg agaacagcca caatggccca ggatgccgcc 1440  
 ccgatggctg tcagaagtag cagggtcccc gcagtgagag ctgccacctt gggctctggag 1500  
 cagcatggca cagtccggcc accctccttc tgcgccatgt cactgcctct tgttaatgat 1560  
 tccctggctg acctcctggg ccagggtggg acctgtgagg agatggacgg ggaggcaggg 1620  
 cctgggggag cccagcccag cccagtcctg gcgccccag tcccaggcgt ccatccaggc 1680  
 aggctgtagg gactgggctt tggccagagc acgcccgtgat cagggacgca gattgggctg 1740  
 ggttcaagga tggggtcagt gtctgaccag cagcgggggg acgcttgat ttgcagggat 1800  
 ggggaccccc atgcctgagc ctggtggagc aggggactga ggatcccggg ttgagggagg 1860



agacagctga ggacctgaaa tcataagtct tgggaaagga ggaatttggg ggccaggact 1920  
 ccctagtatg agggaggagg ggcctgaggg ctggaactcc tgggtctggg gaggaagga 1980  
 ctgggtcca acggtgagt ctgaaggaag agcaggacag aacacctagg tgcttgggga 2040  
 gacgtcatag tgccccctct tcagggtccc aggaaccctt ctattaggag gtgggcatta 2100  
 ggctgggtgg ggggatgagg gaaccctgt cctcagggtt ggaactgtga gtctgggggc 2160  
 ccttgctctt accctggggt ccagcagggt gggcgaggc ctcaggtag tgccgggggtc 2220  
 gggtcagtct ccaggcctgg gcaggagcat ggtggccccg cagcagcggg cggcctggag 2280  
 gcagaggcgg tggcgtgggg cctgctaggg caggctgcct cacctgtggg ccctcaggta 2340  
 gggctccctgg aaagcgggct cga 2363

<210> 40

<211> 417

<212> PRT

<213> Homo sapiens

<400> 40

Met	Ala	Gln	Lys	Glu	Gly	Gly	Arg	Thr	Val	Pro	Cys	Cys	Ser	Arg	Pro
1				5					10					15	
Lys	Val	Ala	Ala	Leu	Thr	Ala	Gly	Thr	Leu	Leu	Leu	Leu	Thr	Ala	Ile
			20					25						30	
Gly	Ala	Ala	Ser	Trp	Ala	Ile	Val	Ala	Val	Leu	Leu	Arg	Ser	Asp	Gln
		35					40						45		
Glu	Pro	Leu	Tyr	Pro	Val	Gln	Val	Ser	Ser	Ala	Asp	Ala	Arg	Leu	Met
	50					55					60				
Val	Phe	Asp	Lys	Thr	Glu	Gly	Thr	Trp	Arg	Leu	Leu	Cys	Ser	Ser	Arg
	65				70					75					80
Ser	Asn	Ala	Arg	Val	Ala	Gly	Leu	Ser	Cys	Glu	Glu	Met	Gly	Phe	Leu
			85						90					95	
Arg	Ala	Leu	Thr	His	Ser	Glu	Leu	Asp	Val	Arg	Thr	Ala	Gly	Ala	Asn
			100					105					110		
Gly	Thr	Ser	Gly	Phe	Phe	Cys	Val	Asp	Glu	Gly	Arg	Leu	Pro	His	Thr
		115					120					125			
Gln	Arg	Leu	Leu	Glu	Val	Ile	Ser	Val	Cys	Asp	Cys	Pro	Arg	Gly	Arg
		130				135					140				
Phe	Leu	Ala	Ala	Ile	Cys	Gln	Asp	Cys	Gly	Arg	Arg	Lys	Leu	Pro	Val
	145				150					155					160
Asp	Arg	Ile	Val	Gly	Gly	Arg	Asp	Thr	Ser	Leu	Gly	Arg	Trp	Pro	Trp
			165					170						175	
Gln	Val	Ser	Leu	Arg	Tyr	Asp	Gly	Ala	His	Leu	Cys	Gly	Gly	Ser	Leu
		180						185					190		
Leu	Ser	Gly	Asp	Trp	Val	Leu	Thr	Ala	Ala	His	Cys	Phe	Pro	Glu	Arg
		195					200					205			
Asn	Arg	Val	Leu	Ser	Arg	Trp	Arg	Val	Phe	Ala	Gly	Ala	Val	Ala	Gln
	210					215					220				
Ala	Ser	Pro	His	Gly	Leu	Gln	Leu	Gly	Val	Gln	Ala	Val	Val	Tyr	His
	225				230					235					240

Gly Gly Tyr Leu Pro Phe Arg Asp Pro Asn Ser Glu Glu Asn Ser Asn  
 245 250 255  
 Asp Ile Ala Leu Val His Leu Ser Ser Pro Leu Pro Leu Thr Glu Tyr  
 260 265 270  
 Ile Gln Pro Val Cys Leu Pro Ala Ala Gly Gln Ala Leu Val Asp Gly  
 275 280 285  
 Lys Ile Cys Thr Val Thr Gly Trp Gly Asn Thr Gln Tyr Tyr Gly Gln  
 290 295 300  
 Gln Ala Gly Val Leu Gln Glu Ala Arg Val Pro Ile Ile Ser Asn Asp  
 305 310 315 320  
 Val Cys Asn Gly Ala Asp Phe Tyr Gly Asn Gln Ile Lys Pro Lys Met  
 325 330 335  
 Phe Cys Ala Gly Tyr Pro Glu Gly Gly Ile Asp Ala Cys Gln Gly Asp  
 340 345 350  
 Ser Gly Gly Pro Phe Val Cys Glu Asp Ser Ile Ser Arg Thr Pro Arg  
 355 360 365  
 Trp Arg Leu Cys Gly Ile Val Ser Trp Gly Thr Gly Cys Ala Leu Ala  
 370 375 380  
 Gln Lys Pro Gly Val Tyr Thr Lys Val Ser Asp Phe Arg Glu Trp Ile  
 385 390 395 400  
 Phe Gln Ala Ile Lys Thr His Ser Glu Ala Ser Gly Met Val Thr Gln  
 405 410 415

Leu

<210> 41  
 <211> 381  
 <212> PRT  
 <213> Homo sapiens

<400> 41  
 Met Ser Ser Arg Ile Ala Arg Ala Leu Ala Leu Val Val Thr Leu Leu  
 1 5 10 15  
 His Leu Thr Arg Leu Ala Leu Ser Thr Cys Pro Ala Ala Cys His Cys  
 20 25 30  
 Pro Leu Glu Ala Pro Lys Cys Ala Pro Gly Val Gly Leu Val Arg Asp  
 35 40 45  
 Gly Cys Gly Cys Cys Lys Val Cys Ala Lys Gln Leu Asn Glu Asp Cys  
 50 55 60  
 Ser Lys Thr Gln Pro Cys Asp His Thr Lys Gly Leu Glu Cys Asn Phe  
 65 70 75 80  
 Gly Ala Ser Ser Thr Ala Leu Lys Gly Ile Cys Arg Ala Gln Ser Glu  
 85 90 95  
 Gly Arg Pro Cys Glu Tyr Asn Ser Arg Ile Tyr Gln Asn Gly Glu Ser



His Leu Thr Arg Leu Ala Leu Ser Thr Cys Pro Ala Ala Cys His Cys  
 20 25 30  
 Pro Leu Glu Ala Pro Lys Cys Ala Pro Gly Val Gly Leu Val Arg Asp  
 35 40 45  
 Gly Cys Gly Cys Cys Lys Val Cys Ala Lys Gln Leu Asn Glu Asp Cys  
 50 55 60  
 Ser Lys Thr Gln Pro Cys Asp His Thr Lys Gly Leu Glu Cys Asn Phe  
 65 70 75 80  
 Gly Ala Ser Ser Thr Ala Leu Lys Gly Ile Cys Arg Ala Gln Ser Glu  
 85 90 95  
 Gly Arg Pro Cys Glu Tyr Asn Ser Arg Ile Tyr Gln Asn Gly Glu Ser  
 100 105 110  
 Phe Gln Pro Asn Cys Lys His Gln Cys Thr Cys Ile Asp Gly Ala Val  
 115 120 125  
 Gly Cys Ile Pro Leu Cys Pro Gln Glu Leu Ser Leu Pro Asn Leu Gly  
 130 135 140  
 Cys Pro Asn Pro Arg Leu Val Lys Val Thr Gly Gln Cys Cys Glu Glu  
 145 150 155 160  
 Trp Val Cys Asp Glu Asp Ser Ile Lys Asp Pro Met Glu Asp Gln Asp  
 165 170 175  
 Gly Leu Leu Gly Lys Glu Leu Gly Phe Asp Ala Ser Glu Val Glu Leu  
 180 185 190  
 Thr Arg Asn Asn Glu Leu Ile Ala Val Gly Lys Gly Ser Ser Leu Lys  
 195 200 205  
 Arg Leu Pro Val Phe Gly Met Glu Pro Arg Ile Leu Tyr Asn Pro Leu  
 210 215 220  
 Gln Gly Gln Lys Cys Ile Val Gln Thr Thr Ser Trp Ser Gln Cys Ser  
 225 230 235 240  
 Lys Thr Cys Gly Thr Gly Ile Ser Thr Arg Val Thr Asn Asp Asn Pro  
 245 250 255  
 Glu Cys Arg Leu Val Lys Glu Thr Arg Ile Cys Glu Val Arg Pro Cys  
 260 265 270  
 Gly Gln Pro Val Tyr Ser Ser Leu Lys Lys Gly Lys Lys Cys Ser Lys  
 275 280 285  
 Thr Lys Lys Ser Pro Glu Pro Val Arg Phe Thr Tyr Ala Gly Cys Leu  
 290 295 300  
 Ser Val Lys Lys Tyr Arg Pro Lys Tyr Cys Gly Ser Cys Val Asp Gly  
 305 310 315 320  
 Arg Cys Cys Thr Pro Gln Leu Thr Arg Thr Val Lys Met Arg Phe Arg  
 325 330 335  
 Cys Glu Asp Gly Glu Thr Phe Ser Lys Asn Val Met Met Ile Gln Ser

340	345	350
Cys Lys Cys Asn Tyr Asn Cys Pro His Ala Asn Glu Ala Ala Phe Pro		
355	360	365
Phe Tyr Arg Leu Phe Asn Asp Ile His Lys Phe Arg Asp		
370	375	380
 <210> 43		
<211> 381		
<212> PRT		
<213> Homo sapiens		
 <400> 43		
Met Ser Ser Arg Ile Ala Arg Ala Leu Ala Leu Val Val Thr Leu Leu		
1	5	10 15
His Leu Thr Arg Leu Ala Leu Ser Thr Cys Pro Ala Ala Cys His Cys		
20	25	30
Pro Leu Glu Ala Pro Lys Cys Ala Pro Gly Val Gly Leu Val Arg Asp		
35	40	45
Gly Cys Gly Cys Cys Lys Val Cys Ala Lys Gln Leu Asn Glu Asp Cys		
50	55	60
Ser Lys Thr Gln Pro Cys Asp His Thr Lys Gly Leu Glu Cys Asn Phe		
65	70	75 80
Gly Ala Ser Ser Thr Ala Leu Lys Gly Ile Cys Arg Ala Gln Ser Glu		
85	90	95
Gly Arg Pro Cys Glu Tyr Asn Ser Arg Ile Tyr Gln Asn Gly Glu Ser		
100	105	110
Phe Gln Pro Asn Cys Lys His Gln Cys Thr Cys Ile Asp Gly Ala Val		
115	120	125
Gly Cys Ile Pro Leu Cys Pro Gln Glu Leu Ser Leu Pro Asn Leu Gly		
130	135	140
Cys Pro Asn Pro Arg Leu Val Lys Val Thr Gly Gln Cys Cys Glu Glu		
145	150	155 160
Trp Val Cys Asp Gln Asp Ser Ile Lys Asp Pro Met Glu Asp Gln Asp		
165	170	175
Gly Leu Leu Gly Lys Glu Leu Gly Phe Asp Ala Ser Glu Val Glu Leu		
180	185	190
Thr Arg Asn Asn Glu Leu Ile Ala Val Gly Lys Gly Ser Ser Leu Lys		
195	200	205
Arg Leu Pro Val Phe Gly Met Glu Pro Arg Ile Leu Tyr Asn Pro Leu		
210	215	220
Gln Gly Gln Lys Cys Ile Val Gln Thr Thr Ser Trp Ser Gln Cys Ser		
225	230	235 240
Lys Thr Cys Gly Thr Gly Ile Ser Thr Arg Val Thr Asn Asp Asn Pro		
245	250	255

Glu Cys Arg Leu Val Lys Glu Thr Arg Ile Cys Glu Val Arg Pro Cys  
 260 265 270  
 Gly Gln Pro Val Tyr Ser Ser Leu Lys Lys Gly Lys Lys Cys Ser Lys  
 275 280 285  
 Thr Lys Lys Ser Pro Glu Pro Val Arg Phe Thr Tyr Ala Gly Cys Leu  
 290 295 300  
 Ser Val Lys Lys Tyr Arg Pro Lys Tyr Cys Gly Ser Cys Val Asp Gly  
 305 310 315 320  
 Arg Cys Cys Thr Pro Gln Leu Thr Arg Thr Val Lys Met Arg Phe Arg  
 325 330 335  
 Cys Glu Asp Gly Glu Thr Phe Ser Lys Asn Val Met Met Ile Gln Ser  
 340 345 350  
 Cys Lys Cys Asn Tyr Asn Cys Pro His Ala Asn Glu Ala Ala Phe Pro  
 355 360 365  
 Phe Tyr Arg Leu Phe Asn Asp Ile His Lys Phe Arg Asp  
 370 375 380

<210> 44  
 <211> 381  
 <212> PRT  
 <213> Homo sapiens

<400> 44  
 Met Ser Ser Arg Ile Ala Arg Ala Leu Ala Leu Val Val Thr Leu Leu  
 1 5 10 15  
 His Leu Thr Arg Leu Ala Leu Ser Thr Cys Pro Ala Ala Cys His Cys  
 20 25 30  
 Pro Leu Glu Ala Pro Lys Cys Ala Pro Gly Val Gly Leu Val Arg Asp  
 35 40 45  
 Gly Cys Gly Cys Cys Lys Val Cys Ala Lys Gln Leu Asn Glu Asp Cys  
 50 55 60  
 Ser Lys Thr Gln Pro Cys Asp His Thr Lys Gly Leu Glu Cys Asn Phe  
 65 70 75 80  
 Gly Ala Ser Ser Thr Ala Leu Lys Gly Ile Cys Arg Ala Gln Ser Glu  
 85 90 95  
 Gly Arg Pro Cys Glu Tyr Asn Ser Arg Ile Tyr Gln Asn Gly Glu Ser  
 100 105 110  
 Phe Gln Pro Asn Cys Lys His Gln Cys Thr Cys Ile Asp Gly Ala Val  
 115 120 125  
 Gly Cys Ile Pro Leu Cys Pro Gln Glu Leu Ser Leu Pro Asn Leu Gly  
 130 135 140  
 Cys Pro Asn Pro Arg Leu Val Lys Val Thr Gly Gln Cys Cys Glu Glu  
 145 150 155 160

Trp Val Cys Asp Glu Asp Ser Ile Lys Asp Pro Met Glu Asp Gln Asp  
 165 170 175  
 Gly Leu Leu Gly Lys Glu Leu Gly Phe Asp Ala Ser Glu Val Glu Leu  
 180 185 190  
 Thr Arg Asn Asn Glu Leu Ile Ala Val Gly Lys Gly Ser Ser Leu Lys  
 195 200 205  
 Arg Leu Pro Val Phe Gly Met Glu Pro Arg Ile Leu Tyr Asn Pro Leu  
 210 215 220  
 Gln Gly Gln Lys Cys Ile Val Gln Thr Thr Ser Trp Ser Gln Cys Ser  
 225 230 235 240  
 Lys Thr Cys Gly Thr Gly Ile Ser Thr Arg Val Thr Asn Asp Asn Pro  
 245 250 255  
 Glu Cys Arg Leu Val Lys Glu Thr Arg Ile Cys Glu Val Arg Pro Cys  
 260 265 270  
 Gly Gln Pro Val Tyr Ser Ser Leu Lys Lys Gly Lys Lys Cys Ser Lys  
 275 280 285  
 Thr Lys Lys Ser Pro Glu Pro Val Arg Phe Thr Tyr Ala Gly Cys Leu  
 290 295 300  
 Ser Val Lys Lys Tyr Arg Pro Lys Tyr Cys Gly Ser Cys Val Asp Gly  
 305 310 315 320  
 Arg Cys Cys Thr Pro Gln Leu Thr Arg Thr Val Lys Met Arg Phe Arg  
 325 330 335  
 Cys Glu Asp Gly Glu Thr Phe Ser Lys Asn Val Met Met Ile Gln Ser  
 340 345 350  
 Cys Lys Cys Asn Tyr Asn Cys Pro His Ala Asn Glu Ala Ala Phe Pro  
 355 360 365  
 Leu Tyr Arg Leu Phe Asn Asp Ile His Lys Phe Arg Asp  
 370 375 380

<210> 45  
 <211> 379  
 <212> PRT  
 <213> Mus musculus

<400> 45  
 Met Ser Ser Ser Thr Phe Arg Thr Leu Ala Val Ala Val Thr Leu Leu  
 1 5 10 15  
 His Leu Thr Arg Leu Ala Leu Ser Thr Cys Pro Ala Ala Cys His Cys  
 20 25 30  
 Pro Leu Glu Ala Pro Lys Cys Ala Pro Gly Val Gly Leu Val Arg Asp  
 35 40 45  
 Gly Cys Gly Cys Cys Lys Val Cys Ala Lys Gln Leu Asn Glu Asp Cys  
 50 55 60  
 Ser Lys Thr Gln Pro Cys Asp His Thr Lys Gly Leu Glu Cys Asn Phe

65	70	75	80
Gly Ala Ser Ser Thr	Ala Leu Lys Gly	Ile Cys Arg Ala Gln Ser	Glu
	85	90	95
Gly Arg Pro Cys Glu Tyr Asn Ser	Arg Ile Tyr Gln Asn Gly	Glu Ser	
	100	105	110
Phe Gln Pro Asn Cys Lys His	Gln Cys Thr Cys Ile Asp	Gly Ala Val	
	115	120	125
Gly Cys Ile Pro Leu Cys Pro	Gln Glu Leu Ser	Leu Pro Asn Leu Gly	
	130	135	140
Cys Pro Asn Pro Arg Leu Val Lys Val	Ser Gly Gln Cys Cys Glu Glu		
	145	150	155
Trp Val Cys Asp Glu Asp Ser Ile Lys Asp Ser	Leu Asp Asp Gln Asp		
	165	170	175
Asp Leu Leu Gly Leu Asp Ala Ser	Glu Val Glu Leu Thr Arg Asn Asn		
	180	185	190
Glu Leu Ile Ala Ile Gly Lys Gly Ser Ser	Leu Lys Arg Leu Pro Val		
	195	200	205
Phe Gly Thr Glu Pro Arg Val Leu Phe Asn Pro	Leu His Ala His Gly		
	210	215	220
Gln Lys Cys Ile Val Gln Thr Thr Ser Trp Ser	Gln Cys Ser Lys Ser		
	225	230	235
Cys Gly Thr Gly Ile Ser Thr Arg Val Thr Asn Asp Asn Pro	Glu Cys		
	245	250	255
Arg Leu Val Lys Glu Thr Arg Ile Cys Glu Val Arg Pro Cys Gly Gln			
	260	265	270
Pro Val Tyr Ser Ser Leu Lys Lys Gly Lys Lys Cys Ser Lys Thr Lys			
	275	280	285
Lys Ser Pro Glu Pro Val Arg Phe Thr Tyr Ala Gly Cys Ser Ser Val			
	290	295	300
Lys Lys Tyr Arg Pro Lys Tyr Cys Gly Ser Cys Val Asp Gly Arg Cys			
	305	310	315
Cys Thr Pro Leu Gln Thr Arg Thr Val Lys Met Arg Phe Arg Cys Glu			
	325	330	335
Asp Gly Glu Met Phe Ser Lys Asn Val Met Met Ile Gln Ser Cys Lys			
	340	345	350
Cys Asn Tyr Asn Cys Pro His Pro Asn Glu Ala Ser Phe Arg Leu Tyr			
	355	360	365
Ser Leu Phe Asn Asp Ile His Lys Phe Arg Asp			
	370	375	

<210> 46  
<211> 628



<212> PRT

<213> Homo sapiens

<400> 46

Met Ala Leu Gln Arg Leu Asp Pro Cys Trp Ser Cys Gly Asp Arg Pro  
1 5 10 15

Gly Ser Leu Leu Phe Leu Leu Phe Ser Leu Gly Trp Val His Pro Ala  
20 25 30

Arg Thr Leu Ala Gly Glu Thr Gly Thr Glu Ser Ala Pro Leu Gly Gly  
35 40 45

Val Leu Thr Thr Pro His Asn Ile Ser Ser Leu Ser Pro Arg Gln Leu  
50 55 60

Leu Gly Phe Pro Cys Ala Glu Val Ser Gly Leu Ser Thr Glu Arg Val  
65 70 75 80

Arg Glu Leu Ala Val Ala Leu Ala Gln Lys Asn Val Lys Leu Ser Thr  
85 90 95

Glu Gln Leu Arg Cys Leu Ala His Arg Leu Ser Glu Pro Pro Glu Asp  
100 105 110

Leu Asp Ala Leu Pro Leu Asp Leu Leu Leu Phe Leu Asn Pro Asp Ala  
115 120 125

Phe Ser Gly Pro Gln Ala Cys Thr Arg Phe Phe Ser Arg Ile Thr Lys  
130 135 140

Ala Asn Val Asp Leu Leu Pro Arg Gly Ala Pro Glu Arg Gln Arg Leu  
145 150 155 160

Leu Pro Ala Ala Leu Ala Cys Trp Gly Val Arg Gly Ser Leu Leu Ser  
165 170 175

Glu Ala Asp Val Arg Ala Leu Gly Gly Leu Ala Cys Asp Leu Pro Gly  
180 185 190

Arg Phe Val Ala Glu Ser Ala Glu Val Leu Leu Pro Arg Leu Val Ser  
195 200 205

Cys Pro Gly Pro Leu Asp Gln Asp Gln Gln Glu Ala Ala Arg Ala Ala  
210 215 220

Leu Gln Gly Gly Gly Pro Pro Tyr Gly Pro Pro Ser Thr Trp Ser Val  
225 230 235 240

Ser Thr Met Asp Ala Leu Arg Gly Leu Leu Pro Val Leu Gly Gln Pro  
245 250 255

Ile Ile Arg Ser Ile Pro Gln Gly Ile Val Ala Ala Trp Arg Gln Arg  
260 265 270

Ser Ser Arg Asp Pro Ser Trp Arg Gln Pro Glu Arg Thr Ile Leu Arg  
275 280 285

Pro Arg Phe Arg Arg Glu Val Glu Lys Thr Ala Cys Pro Ser Gly Lys  
290 295 300

Lys Ala Arg Glu Ile Asp Glu Ser Leu Ile Phe Tyr Lys Lys Trp Glu

305		310		315		320
Leu Glu Ala Cys Val Asp Ala Ala Leu Leu Ala Thr Gln Met Asp Arg	325			330		335
Val Asn Ala Ile Pro Phe Thr Tyr Glu Gln Leu Asp Val Leu Lys His	340			345		350
Lys Leu Asp Glu Leu Tyr Pro Gln Gly Tyr Pro Glu Ser Val Ile Gln	355			360		365
His Leu Gly Tyr Leu Phe Leu Lys Met Ser Pro Glu Asp Ile Arg Lys	370			375		380
Trp Asn Val Thr Ser Leu Glu Thr Leu Lys Ala Leu Leu Glu Val Asp	385			390		395
Lys Gly His Glu Met Ser Pro Gln Ala Pro Arg Arg Pro Leu Pro Gln	405			410		415
Val Ala Thr Leu Ile Asp Arg Phe Val Lys Gly Arg Gly Gln Leu Asp	420			425		430
Lys Asp Thr Leu Asp Thr Leu Thr Ala Phe Tyr Pro Gly Tyr Leu Cys	435			440		445
Ser Leu Ser Pro Glu Glu Leu Ser Ser Val Pro Pro Ser Ser Ile Trp	450			455		460
Ala Val Arg Pro Gln Asp Leu Asp Thr Cys Asp Pro Arg Gln Leu Asp	465			470		475
Val Leu Tyr Pro Lys Ala Arg Leu Ala Phe Gln Asn Met Asn Gly Ser	485			490		495
Glu Tyr Phe Val Lys Ile Gln Ser Phe Leu Gly Gly Ala Pro Thr Glu	500			505		510
Asp Leu Lys Ala Leu Ser Gln Gln Asn Val Ser Met Asp Leu Ala Thr	515			520		525
Phe Met Lys Leu Arg Thr Asp Ala Val Leu Pro Leu Thr Val Ala Glu	530			535		540
Val Gln Lys Leu Leu Gly Pro His Val Glu Gly Leu Lys Ala Glu Glu	545			550		555
Arg His Arg Pro Val Arg Asp Trp Ile Leu Arg Gln Arg Gln Asp Asp	565			570		575
Leu Asp Thr Leu Gly Leu Gly Leu Gln Gly Gly Ile Pro Asn Gly Tyr	580			585		590
Leu Val Leu Asp Leu Ser Val Gln Glu Thr Leu Ser Gly Thr Pro Cys	595			600		605
Leu Leu Gly Pro Gly Pro Val Leu Thr Val Leu Ala Leu Leu Leu Ala	610			615		620
Ser Thr Leu Ala	625					

<210> 47  
 <211> 630  
 <212> PRT  
 <213> Homo sapiens

<400> 47

Met	Ala	Leu	Pro	Thr	Ala	Arg	Pro	Leu	Leu	Gly	Ser	Cys	Gly	Thr	Pro
1				5				10						15	
Ala	Leu	Gly	Ser	Leu	Leu	Phe	Leu	Leu	Phe	Ser	Leu	Gly	Trp	Val	Gln
			20					25					30		
Pro	Ser	Arg	Thr	Leu	Ala	Gly	Glu	Thr	Gly	Gln	Glu	Ala	Ala	Pro	Leu
		35					40					45			
Asp	Gly	Val	Leu	Ala	Asn	Pro	Pro	Asn	Ile	Ser	Ser	Leu	Ser	Pro	Arg
	50					55					60				
Gln	Leu	Leu	Gly	Phe	Pro	Cys	Ala	Glu	Val	Ser	Gly	Leu	Ser	Thr	Glu
	65				70					75					80
Arg	Val	Arg	Glu	Leu	Ala	Val	Ala	Leu	Ala	Gln	Lys	Asn	Val	Lys	Leu
				85					90					95	
Ser	Thr	Glu	Gln	Leu	Arg	Cys	Leu	Ala	His	Arg	Leu	Ser	Glu	Pro	Pro
			100					105					110		
Glu	Asp	Leu	Asp	Ala	Leu	Pro	Leu	Asp	Leu	Leu	Leu	Phe	Leu	Asn	Pro
		115					120					125			
Asp	Ala	Phe	Ser	Gly	Pro	Gln	Ala	Cys	Thr	Arg	Phe	Phe	Ser	Arg	Ile
	130					135					140				
Thr	Lys	Ala	Asn	Val	Asp	Leu	Leu	Pro	Arg	Gly	Ala	Pro	Glu	Arg	Gln
	145				150					155					160
Arg	Leu	Leu	Pro	Ala	Ala	Leu	Ala	Cys	Trp	Gly	Val	Arg	Gly	Ser	Leu
				165					170					175	
Leu	Ser	Glu	Ala	Asp	Val	Arg	Ala	Leu	Gly	Gly	Leu	Ala	Cys	Asp	Leu
			180					185					190		
Pro	Gly	Arg	Phe	Val	Ala	Glu	Ser	Ala	Glu	Val	Leu	Leu	Pro	Arg	Leu
		195					200						205		
Val	Ser	Cys	Pro	Gly	Pro	Leu	Asp	Gln	Asp	Gln	Gln	Glu	Ala	Ala	Arg
		210				215					220				
Ala	Ala	Leu	Gln	Gly	Gly	Gly	Pro	Pro	Tyr	Gly	Pro	Pro	Ser	Thr	Trp
	225				230					235					240
Ser	Val	Ser	Thr	Met	Asp	Ala	Leu	Arg	Gly	Leu	Leu	Pro	Val	Leu	Gly
				245					250					255	
Gln	Pro	Ile	Ile	Arg	Ser	Ile	Pro	Gln	Gly	Ile	Val	Ala	Ala	Trp	Arg
		260						265					270		
Gln	Arg	Ser	Ser	Arg	Asp	Pro	Ser	Trp	Arg	Gln	Pro	Glu	Arg	Thr	Ile
		275					280					285			
Leu	Arg	Pro	Arg	Phe	Arg	Arg	Glu	Val	Glu	Lys	Thr	Ala	Cys	Pro	Ser

290					295					300					
Gly	Lys	Lys	Ala	Arg	Glu	Ile	Asp	Glu	Ser	Leu	Ile	Phe	Tyr	Lys	Lys
305					310					315					320
Trp	Glu	Leu	Glu	Ala	Cys	Val	Asp	Ala	Ala	Leu	Leu	Ala	Thr	Gln	Met
				325					330					335	
Asp	Arg	Val	Asn	Ala	Ile	Pro	Phe	Thr	Tyr	Glu	Gln	Leu	Asp	Val	Leu
			340					345					350		
Lys	His	Lys	Leu	Asp	Glu	Leu	Tyr	Pro	Gln	Gly	Tyr	Pro	Glu	Ser	Val
		355					360					365			
Ile	Gln	His	Leu	Gly	Tyr	Leu	Phe	Leu	Lys	Met	Ser	Pro	Glu	Asp	Ile
	370					375					380				
Arg	Lys	Trp	Asn	Val	Thr	Ser	Leu	Glu	Thr	Leu	Lys	Ala	Leu	Leu	Glu
385					390					395					400
Val	Asn	Lys	Gly	His	Glu	Met	Ser	Pro	Gln	Ala	Pro	Arg	Arg	Pro	Leu
				405					410					415	
Pro	Gln	Val	Ala	Thr	Leu	Ile	Asp	Arg	Phe	Val	Lys	Gly	Arg	Gly	Gln
			420					425					430		
Leu	Asp	Lys	Asp	Thr	Leu	Asp	Thr	Leu	Thr	Ala	Phe	Tyr	Pro	Gly	Tyr
	435					440						445			
Leu	Cys	Ser	Leu	Ser	Pro	Glu	Glu	Leu	Ser	Ser	Val	Pro	Pro	Ser	Ser
	450					455					460				
Ile	Trp	Ala	Val	Arg	Pro	Gln	Asp	Leu	Asp	Thr	Cys	Asp	Pro	Arg	Gln
465					470					475					480
Leu	Asp	Val	Leu	Tyr	Pro	Lys	Ala	Arg	Leu	Ala	Phe	Gln	Asn	Met	Asn
			485					490						495	
Gly	Ser	Glu	Tyr	Phe	Val	Lys	Ile	Gln	Ser	Phe	Leu	Gly	Gly	Ala	Pro
			500					505					510		
Thr	Glu	Asp	Leu	Lys	Ala	Leu	Ser	Gln	Gln	Asn	Val	Ser	Met	Asp	Leu
			515				520					525			
Ala	Thr	Phe	Met	Lys	Leu	Arg	Thr	Asp	Ala	Val	Leu	Pro	Leu	Thr	Val
	530					535					540				
Ala	Glu	Val	Gln	Lys	Leu	Leu	Gly	Pro	His	Val	Glu	Gly	Leu	Lys	Ala
545					550					555					560
Glu	Glu	Arg	His	Arg	Pro	Val	Arg	Asp	Trp	Ile	Leu	Arg	Gln	Arg	Gln
			565					570						575	
Asp	Asp	Leu	Asp	Thr	Leu	Gly	Leu	Gly	Leu	Gln	Gly	Gly	Ile	Pro	Asn
			580				585						590		
Gly	Tyr	Leu	Val	Leu	Asp	Leu	Ser	Met	Gln	Glu	Ala	Leu	Ser	Gly	Thr
		595					600					605			
Pro	Cys	Leu	Leu	Gly	Pro	Gly	Pro	Val	Leu	Thr	Val	Leu	Ala	Leu	Leu
	610					615					620				

Leu Ala Ser Thr Leu Ala  
625 630

<210> 48  
<211> 622  
<212> PRT  
<213> Homo sapiens

<400> 48

Met Ala Leu Pro Thr Ala Arg Pro Leu Leu Gly Ser Cys Gly Thr Pro  
1 5 10 15

Ala Leu Gly Ser Leu Leu Phe Leu Leu Phe Ser Leu Gly Trp Val Gln  
20 25 30

Pro Ser Arg Thr Leu Ala Gly Glu Thr Gly Gln Glu Ala Ala Pro Leu  
35 40 45

Asp Gly Val Leu Ala Asn Pro Pro Asn Ile Ser Ser Leu Ser Pro Arg  
50 55 60

Gln Leu Leu Gly Phe Pro Cys Ala Glu Val Ser Gly Leu Ser Thr Glu  
65 70 75 80

Arg Val Arg Glu Leu Ala Val Ala Leu Ala Gln Lys Asn Val Lys Leu  
85 90 95

Ser Thr Glu Gln Leu Arg Cys Leu Ala His Arg Leu Ser Glu Pro Pro  
100 105 110

Glu Asp Leu Asp Ala Leu Pro Leu Asp Leu Leu Leu Phe Leu Asn Pro  
115 120 125

Asp Ala Phe Ser Gly Pro Gln Ala Cys Thr Arg Phe Phe Ser Arg Ile  
130 135 140

Thr Lys Ala Asn Val Asp Leu Leu Pro Arg Gly Ala Pro Glu Arg Gln  
145 150 155 160

Arg Leu Leu Pro Ala Ala Leu Ala Cys Trp Gly Val Arg Gly Ser Leu  
165 170 175

Leu Ser Glu Ala Asp Val Arg Ala Leu Gly Gly Leu Ala Cys Asp Leu  
180 185 190

Pro Gly Arg Phe Val Ala Glu Ser Ala Glu Val Leu Leu Pro Arg Leu  
195 200 205

Val Ser Cys Pro Gly Pro Leu Asp Gln Asp Gln Gln Glu Ala Ala Arg  
210 215 220

Ala Ala Leu Gln Gly Gly Gly Pro Pro Tyr Gly Pro Pro Ser Thr Trp  
225 230 235 240

Ser Val Ser Thr Met Asp Ala Leu Arg Gly Leu Leu Pro Val Leu Gly  
245 250 255

Gln Pro Ile Ile Arg Ser Ile Pro Gln Gly Ile Val Ala Ala Trp Arg  
260 265 270

Gln Arg Ser Ser Arg Asp Pro Ser Trp Arg Gln Pro Glu Arg Thr Ile

275					280					285					
Leu	Arg	Pro	Arg	Phe	Arg	Arg	Glu	Val	Glu	Lys	Thr	Ala	Cys	Pro	Ser
290					295					300					
Gly	Lys	Lys	Ala	Arg	Glu	Ile	Asp	Glu	Ser	Leu	Ile	Phe	Tyr	Lys	Lys
305					310					315					320
Trp	Glu	Leu	Glu	Ala	Cys	Val	Asp	Ala	Ala	Leu	Leu	Ala	Thr	Gln	Met
				325					330					335	
Asp	Arg	Val	Asn	Ala	Ile	Pro	Phe	Thr	Tyr	Glu	Gln	Leu	Asp	Val	Leu
			340					345					350		
Lys	His	Lys	Leu	Asp	Glu	Leu	Tyr	Pro	Gln	Gly	Tyr	Pro	Glu	Ser	Val
		355					360					365			
Ile	Gln	His	Leu	Gly	Tyr	Leu	Phe	Leu	Lys	Met	Ser	Pro	Glu	Asp	Ile
	370					375					380				
Arg	Lys	Trp	Asn	Val	Thr	Ser	Leu	Glu	Thr	Leu	Lys	Ala	Leu	Leu	Glu
385					390					395					400
Val	Asn	Lys	Gly	His	Glu	Met	Ser	Pro	Gln	Val	Ala	Thr	Leu	Ile	Asp
				405					410					415	
Arg	Phe	Val	Lys	Gly	Arg	Gly	Gln	Leu	Asp	Lys	Asp	Thr	Leu	Asp	Thr
			420					425						430	
Leu	Thr	Ala	Phe	Tyr	Pro	Gly	Tyr	Leu	Cys	Ser	Leu	Ser	Pro	Glu	Glu
		435					440					445			
Leu	Ser	Ser	Val	Pro	Pro	Ser	Ser	Ile	Trp	Ala	Val	Arg	Pro	Gln	Asp
	450					455					460				
Leu	Asp	Thr	Cys	Asp	Pro	Arg	Gln	Leu	Asp	Val	Leu	Tyr	Pro	Lys	Ala
465					470					475					480
Arg	Leu	Ala	Phe	Gln	Asn	Met	Asn	Gly	Ser	Glu	Tyr	Phe	Val	Lys	Ile
			485						490					495	
Gln	Ser	Phe	Leu	Gly	Gly	Ala	Pro	Thr	Glu	Asp	Leu	Lys	Ala	Leu	Ser
			500					505					510		
Gln	Gln	Asn	Val	Ser	Met	Asp	Leu	Ala	Thr	Phe	Met	Lys	Leu	Arg	Thr
		515					520					525			
Asp	Ala	Val	Leu	Pro	Leu	Thr	Val	Ala	Glu	Val	Gln	Lys	Leu	Leu	Gly
	530					535					540				
Pro	His	Val	Glu	Gly	Leu	Lys	Ala	Glu	Glu	Arg	His	Arg	Pro	Val	Arg
545					550					555					560
Asp	Trp	Ile	Leu	Arg	Gln	Arg	Gln	Asp	Asp	Leu	Asp	Thr	Leu	Gly	Leu
				565					570					575	
Gly	Leu	Gln	Gly	Gly	Ile	Pro	Asn	Gly	Tyr	Leu	Val	Leu	Asp	Leu	Ser
			580					585					590		
Val	Gln	Glu	Ala	Leu	Ser	Gly	Thr	Pro	Cys	Leu	Leu	Gly	Pro	Gly	Pro
		595					600					605			

Val Leu Thr Val Leu Ala Leu Leu Leu Ala Ser Thr Leu Ala  
610 615 620

<210> 49  
<211> 622  
<212> PRT  
<213> Homo sapiens

<400> 49

Met Ala Leu Pro Thr Ala Arg Pro Leu Leu Gly Ser Cys Gly Thr Pro  
1 5 10 15

Ala Leu Gly Ser Leu Leu Phe Leu Leu Phe Ser Leu Gly Trp Val Gln  
20 25 30

Pro Ser Arg Thr Leu Ala Gly Glu Thr Gly Gln Glu Ala Ala Pro Leu  
35 40 45

Asp Gly Val Leu Ala Asn Pro Pro Asn Ile Ser Ser Leu Ser Pro Arg  
50 55 60

Gln Leu Leu Gly Phe Pro Cys Ala Glu Val Ser Gly Leu Ser Thr Glu  
65 70 75 80

Arg Val Arg Glu Leu Ala Val Ala Leu Ala Gln Lys Asn Val Lys Leu  
85 90 95

Ser Thr Glu Gln Leu Arg Cys Leu Ala His Arg Leu Ser Glu Pro Pro  
100 105 110

Glu Asp Leu Asp Ala Leu Pro Leu Asp Leu Leu Leu Phe Leu Asn Pro  
115 120 125

Asp Ala Phe Ser Gly Pro Gln Ala Cys Thr Arg Phe Phe Ser Arg Ile  
130 135 140

Thr Lys Ala Asn Val Asp Leu Leu Pro Arg Gly Ala Pro Glu Arg Gln  
145 150 155 160

Arg Leu Leu Pro Ala Ala Leu Ala Cys Trp Gly Val Arg Gly Ser Leu  
165 170 175

Leu Ser Glu Ala Asp Val Arg Ala Leu Gly Gly Leu Ala Cys Asp Leu  
180 185 190

Pro Gly Arg Phe Val Ala Glu Ser Ala Glu Val Leu Leu Pro Arg Leu  
195 200 205

Val Ser Cys Pro Gly Pro Leu Asp Gln Asp Gln Gln Glu Ala Ala Arg  
210 215 220

Ala Ala Leu Gln Gly Gly Gly Pro Pro Tyr Gly Pro Pro Ser Thr Trp  
225 230 235 240

Ser Val Ser Thr Met Asp Ala Leu Arg Gly Leu Leu Pro Val Leu Gly  
245 250 255

Gln Pro Ile Ile Arg Ser Ile Pro Gln Gly Ile Val Ala Ala Trp Arg  
260 265 270

Gln Arg Ser Ser Arg Asp Pro Ser Trp Arg Gln Pro Glu Arg Thr Ile

275					280					285					
Leu	Arg	Pro	Arg	Phe	Arg	Arg	Glu	Val	Glu	Lys	Thr	Ala	Cys	Pro	Ser
290						295					300				
Gly	Lys	Lys	Ala	Arg	Glu	Ile	Asp	Glu	Ser	Leu	Ile	Phe	Tyr	Lys	Lys
305					310					315					320
Trp	Glu	Leu	Glu	Ala	Cys	Val	Asp	Ala	Ala	Leu	Leu	Ala	Thr	Gln	Met
				325					330					335	
Asp	Arg	Val	Asn	Ala	Ile	Pro	Phe	Thr	Tyr	Glu	Gln	Leu	Asp	Val	Leu
			340					345					350		
Lys	His	Lys	Leu	Asp	Glu	Leu	Tyr	Pro	Gln	Gly	Tyr	Pro	Glu	Ser	Val
		355					360					365			
Ile	Gln	His	Leu	Gly	Tyr	Leu	Phe	Leu	Lys	Met	Ser	Pro	Glu	Asp	Ile
	370					375					380				
Arg	Lys	Trp	Asn	Val	Thr	Ser	Leu	Glu	Thr	Leu	Lys	Ala	Leu	Leu	Glu
385					390					395					400
Val	Asn	Lys	Gly	His	Glu	Met	Ser	Pro	Gln	Val	Ala	Thr	Leu	Ile	Asp
				405					410					415	
Arg	Phe	Val	Lys	Gly	Arg	Gly	Gln	Leu	Asp	Lys	Asp	Thr	Leu	Asp	Thr
			420					425					430		
Leu	Thr	Ala	Phe	Tyr	Pro	Gly	Tyr	Leu	Cys	Ser	Leu	Ser	Pro	Glu	Glu
	435					440						445			
Leu	Ser	Ser	Val	Pro	Pro	Ser	Ser	Ile	Trp	Ala	Val	Arg	Pro	Gln	Asp
	450					455					460				
Leu	Asp	Thr	Cys	Asp	Pro	Arg	Gln	Leu	Asp	Val	Leu	Tyr	Pro	Lys	Ala
465					470					475					480
Arg	Leu	Ala	Phe	Gln	Asn	Met	Asn	Gly	Ser	Glu	Tyr	Phe	Val	Lys	Ile
			485						490					495	
Gln	Ser	Phe	Leu	Gly	Gly	Ala	Pro	Thr	Glu	Asp	Leu	Lys	Ala	Leu	Ser
		500						505					510		
Gln	Gln	Asn	Val	Ser	Met	Asp	Leu	Ala	Thr	Phe	Met	Lys	Leu	Arg	Thr
		515					520					525			
Asp	Ala	Val	Leu	Pro	Leu	Thr	Val	Ala	Glu	Val	Gln	Lys	Leu	Leu	Gly
	530					535					540				
Pro	His	Val	Glu	Gly	Leu	Lys	Ala	Glu	Glu	Arg	His	Arg	Pro	Val	Arg
545					550					555					560
Asp	Trp	Ile	Leu	Arg	Gln	Arg	Gln	Asp	Asp	Leu	Asp	Thr	Leu	Gly	Leu
			565						570					575	
Gly	Leu	Gln	Gly	Gly	Ile	Pro	Asn	Gly	Tyr	Leu	Val	Leu	Asp	Leu	Ser
		580						585					590		
Met	Gln	Glu	Ala	Leu	Ser	Gly	Thr	Pro	Cys	Leu	Leu	Gly	Pro	Gly	Pro
	595						600					605			



Val Leu Thr Val Leu Ala Leu Leu Leu Ala Ser Thr Leu Ala  
610 615 620

<210> 50  
<211> 622  
<212> PRT  
<213> Homo sapiens

<400> 50  
Met Ala Leu Pro Thr Ala Arg Pro Leu Leu Gly Ser Cys Gly Thr Pro  
1 5 10 15  
Ala Leu Gly Ser Leu Leu Phe Leu Leu Phe Ser Leu Gly Trp Val Gln  
20 25 30  
Pro Ser Arg Thr Leu Ala Gly Glu Thr Gly Gln Glu Ala Ala Pro Leu  
35 40 45  
Asp Gly Val Leu Ala Asn Pro Pro Asn Ile Ser Ser Leu Ser Pro Arg  
50 55 60  
Gln Leu Leu Gly Phe Pro Cys Ala Glu Val Ser Gly Leu Ser Thr Glu  
65 70 75 80  
Arg Val Arg Glu Leu Ala Val Ala Leu Ala Gln Lys Asn Val Lys Leu  
85 90 95  
Ser Thr Glu Gln Leu Arg Cys Leu Ala His Arg Leu Ser Glu Pro Pro  
100 105 110  
Glu Asp Leu Asp Ala Leu Pro Leu Asp Leu Leu Leu Phe Leu Asn Pro  
115 120 125  
Asp Ala Phe Ser Gly Pro Gln Ala Cys Thr Arg Phe Phe Ser Arg Ile  
130 135 140  
Thr Lys Ala Asn Val Asp Leu Leu Pro Arg Gly Ala Pro Glu Arg Gln  
145 150 155 160  
Arg Leu Leu Pro Ala Ala Leu Ala Cys Trp Gly Val Arg Gly Ser Leu  
165 170 175  
Leu Ser Glu Ala Asp Val Arg Ala Leu Gly Gly Leu Ala Cys Asp Leu  
180 185 190  
Pro Gly Arg Phe Val Ala Glu Ser Ala Glu Val Leu Leu Pro Arg Leu  
195 200 205  
Val Ser Cys Pro Gly Pro Leu Asp Gln Asp Gln Gln Glu Ala Ala Arg  
210 215 220  
Ala Ala Leu Gln Gly Gly Gly Pro Pro Tyr Gly Pro Pro Ser Thr Trp  
225 230 235 240  
Ser Val Ser Thr Met Asp Ala Leu Arg Gly Leu Leu Pro Val Leu Gly  
245 250 255  
Gln Pro Ile Ile Arg Ser Ile Pro Gln Gly Ile Val Ala Ala Trp Arg  
260 265 270  
Gln Arg Ser Ser Arg Asp Pro Ser Trp Arg Gln Pro Glu Arg Thr Ile

275					280					285					
Leu	Arg	Pro	Arg	Phe	Arg	Arg	Glu	Val	Glu	Lys	Thr	Ala	Cys	Pro	Ser
290						295					300				
Gly	Lys	Lys	Ala	Pro	Glu	Ile	Asp	Glu	Ser	Leu	Ile	Phe	Tyr	Lys	Lys
305					310					315					320
Trp	Glu	Leu	Glu	Ala	Cys	Val	Asp	Ala	Ala	Leu	Leu	Ala	Thr	Gln	Met
				325					330					335	
Asp	Arg	Val	Asn	Ala	Ile	Pro	Phe	Thr	Tyr	Glu	Gln	Leu	Asp	Val	Leu
			340					345					350		
Lys	His	Lys	Leu	Asp	Glu	Leu	Tyr	Pro	Gln	Gly	Tyr	Pro	Glu	Ser	Val
		355					360					365			
Ile	Gln	His	Leu	Gly	Tyr	Leu	Phe	Leu	Lys	Met	Ser	Pro	Glu	Asp	Ile
	370					375					380				
Arg	Lys	Trp	Asn	Val	Thr	Ser	Leu	Glu	Thr	Leu	Lys	Ala	Leu	Leu	Glu
385						390					395				400
Val	Asn	Lys	Gly	His	Glu	Met	Ser	Pro	Gln	Val	Ala	Thr	Leu	Ile	Asp
				405					410					415	
Arg	Phe	Val	Lys	Gly	Arg	Gly	Gln	Leu	Asp	Lys	Asp	Thr	Leu	Asp	Thr
			420					425					430		
Leu	Thr	Ala	Phe	Tyr	Pro	Gly	Tyr	Leu	Cys	Ser	Leu	Ser	Pro	Glu	Glu
		435					440					445			
Leu	Ser	Ser	Val	Pro	Pro	Ser	Ser	Ile	Trp	Ala	Val	Arg	Pro	Gln	Asp
	450					455					460				
Leu	Asp	Thr	Cys	Asp	Pro	Arg	Gln	Leu	Asp	Val	Leu	Tyr	Pro	Lys	Ala
465						470					475				480
Arg	Leu	Ala	Phe	Gln	Asn	Met	Asn	Gly	Ser	Glu	Tyr	Phe	Val	Lys	Ile
			485						490					495	
Gln	Ser	Phe	Leu	Gly	Gly	Ala	Pro	Thr	Glu	Asp	Leu	Lys	Ala	Leu	Ser
			500					505					510		
Gln	Gln	Asn	Val	Ser	Met	Asp	Leu	Ala	Thr	Phe	Met	Lys	Leu	Arg	Thr
		515					520					525			
Asp	Ala	Val	Leu	Pro	Leu	Thr	Val	Ala	Glu	Val	Gln	Lys	Leu	Leu	Gly
	530					535					540				
Pro	His	Val	Glu	Gly	Leu	Lys	Ala	Glu	Glu	Arg	His	Arg	Pro	Val	Arg
545						550					555				560
Asp	Trp	Ile	Leu	Arg	Gln	Arg	Gln	Asp	Asp	Leu	Asp	Thr	Leu	Gly	Leu
				565					570					575	
Gly	Leu	Gln	Gly	Gly	Ile	Pro	Asn	Gly	Tyr	Leu	Val	Leu	Asp	Leu	Ser
			580					585					590		
Met	Gln	Glu	Ala	Leu	Ser	Gly	Thr	Pro	Cys	Leu	Leu	Gly	Pro	Gly	Pro
		595					600					605			

Val Leu Thr Val Leu Ala Leu Leu Leu Ala Ser Thr Leu Ala  
610 615 620

<210> 51  
<211> 114  
<212> PRT  
<213> Homo sapiens

<400> 51  
Met Ser Ala Leu Ser Leu Leu Ile Leu Gly Leu Leu Thr Ala Val Pro  
1 5 10 15  
Pro Ala Ser Cys Gln Gln Gly Leu Gly Asn Leu Gln Pro Trp Met Gln  
20 25 30  
Gly Leu Ile Ala Val Ala Val Phe Leu Val Leu Val Ala Ile Ala Phe  
35 40 45  
Ala Val Asn His Phe Trp Cys Gln Glu Glu Pro Glu Pro Ala His Met  
50 55 60  
Ile Leu Thr Val Gly Asn Lys Ala Asp Gly Val Leu Val Gly Thr Asp  
65 70 75 80  
Gly Arg Tyr Ser Ser Met Ala Ala Ser Phe Arg Ser Ser Glu His Glu  
85 90 95  
Asn Ala Tyr Glu Asn Val Pro Glu Glu Glu Gly Lys Val Arg Ser Thr  
100 105 110  
Pro Met

<210> 52  
<211> 114  
<212> PRT  
<213> Homo sapiens

<400> 52  
Met Ser Ala Leu Ser Leu Leu Ile Leu Gly Leu Leu Met Ala Val Pro  
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Pro Ala Ser Cys Gln Gln Gly Leu Gly Asn Leu Gln Pro Trp Met Gln  
20 25 30  
Gly Leu Ile Ala Val Ala Val Phe Leu Val Leu Val Ala Ile Ala Phe  
35 40 45  
Ala Val Lys His Phe Trp Cys Gln Glu Glu Pro Glu Pro Ala His Met  
50 55 60  
Ile Leu Thr Val Gly Asn Lys Ala Asp Gly Val Leu Val Gly Thr Asp  
65 70 75 80  
Gly Arg Tyr Ser Ser Met Ala Ala Ser Phe Arg Ser Ser Glu His Glu  
85 90 95  
Asn Ala Tyr Glu Asn Val Pro Glu Glu Glu Gly Lys Val Arg Ser Thr  
100 105 110

Pro Met

<210> 53  
<211> 114  
<212> PRT  
<213> Mus musculus

<400> 53

Met	Leu	Ala	Phe	Ser	Leu	Leu	Val	Leu	Gly	Leu	Leu	Ala	Glu	Val	Ala
1				5					10					15	
Pro	Ala	Ser	Cys	Gln	Gln	Gly	Leu	Gly	Asn	Leu	Gln	Pro	Trp	Met	Gln
			20					25					30		
Gly	Leu	Ile	Ala	Val	Ala	Val	Phe	Leu	Val	Leu	Val	Ala	Ile	Val	Phe
		35					40					45			
Ala	Val	Asn	His	Phe	Trp	Cys	Gln	Glu	Glu	Pro	Glu	Pro	Gly	Ser	Thr
		50				55					60				
Val	Met	Ile	Ile	Gly	Asn	Lys	Ala	Asp	Gly	Val	Leu	Val	Gly	Met	Asp
	65				70					75					80
Gly	Arg	Tyr	Ser	Ser	Met	Ala	Ser	Gly	Phe	Arg	Ser	Ser	Glu	His	Lys
				85					90					95	
Asn	Ala	Tyr	Glu	Asn	Val	Leu	Glu	Glu	Glu	Gly	Arg	Val	Arg	Ser	Thr
			100					105					110		

Pro Met

<210> 54  
<211> 114  
<212> PRT  
<213> Rattus norvegicus

<400> 54

Met	Leu	Ala	Leu	Ser	Leu	Leu	Ala	Leu	Gly	Leu	Leu	Ala	Glu	Val	Ala
1				5					10					15	
Pro	Ala	Ser	Cys	Gln	Gln	Gly	Leu	Gly	Asn	Leu	Gln	Pro	Trp	Met	Gln
			20					25					30		
Gly	Leu	Ile	Ala	Val	Ala	Val	Phe	Leu	Val	Leu	Val	Ala	Ile	Ala	Phe
		35					40					45			
Ala	Val	Asn	His	Phe	Trp	Cys	Gln	Glu	Glu	Gln	Glu	Pro	Gly	Ser	Thr
		50				55					60				
Met	Met	Ile	Thr	Gly	Asn	Lys	Ala	Asp	Gly	Val	Leu	Val	Gly	Met	Asp
	65				70					75					80
Gly	Arg	Tyr	Ser	Ser	Met	Ala	Ser	Gly	Phe	Arg	Ser	Ser	Glu	His	Lys
				85					90					95	
Asn	Ala	Phe	Glu	Asn	Val	Leu	Glu	Glu	Glu	Gly	Arg	Val	Arg	Ser	Thr
			100					105					110		

Pro Met

<210> 55

<211> 78

<212> PRT

<213> Rattus norvegicus

<400> 55

Ile Ser Tyr Lys His Ser Arg Pro Pro Ala Ala Pro Gly Val Lys Thr  
1 5 10 15

Pro Ala Val Leu Gln Leu Pro Ala Ala Met Leu Ala Leu Ile Leu Leu  
20 25 30

Ala Leu Gly Leu Leu Ala Glu Val Ala Pro Ala Ser Cys Leu Gln Gly  
35 40 45

Leu Gly Asn Leu Gln Pro Trp Met Leu Gly Leu Ile Ala Val Ala Val  
50 55 60

Phe Leu Val Leu Val Ala Ile Ala Phe Pro Val Asn Arg Phe  
65 70 75

<210> 56

<211> 159

<212> PRT

<213> Homo sapiens

<400> 56

Met Thr Ala Leu Thr Glu Glu Ala Ala Val Thr Val Thr Pro Pro Ile  
1 5 10 15

Thr Ala Gln Gln Ala Asp Asn Ile Glu Gly Pro Ile Ala Leu Lys Phe  
20 25 30

Ser His Leu Cys Leu Glu Asp His Asn Ser Tyr Cys Ile Asn Gly Ala  
35 40 45

Cys Ala Phe His His Glu Leu Glu Lys Ala Ile Cys Arg Cys Phe Thr  
50 55 60

Gly Tyr Thr Gly Glu Arg Cys Glu His Leu Thr Leu Thr Ser Tyr Ala  
65 70 75 80

Val Asp Ser Tyr Glu Lys Tyr Ile Ala Ile Gly Ile Gly Val Gly Leu  
85 90 95

Leu Leu Ser Gly Phe Leu Val Ile Phe Tyr Cys Tyr Ile Arg Lys Arg  
100 105 110

Cys Leu Lys Leu Lys Ser Pro Tyr Asn Val Cys Ser Gly Glu Arg Arg  
115 120 125

Pro Leu Tyr Gln Trp Asn Tyr Leu Val Thr Ile His Leu Asp Arg Asn  
130 135 140

Pro Gly Ser Leu Leu Leu Asn Lys Ser Leu Gln Leu Ala Leu Lys  
145 150 155

<210> 57  
 <211> 152  
 <212> PRT  
 <213> Mus musculus

<400> 57  
 Met Ala Leu Gly Val Leu Ile Ala Val Cys Leu Leu Phe Lys Ala Met  
     1                    5                    10                    15  
  
 Lys Ala Ala Leu Ser Glu Glu Ala Glu Val Ile Pro Pro Ser Thr Ala  
             20                    25                    30  
  
 Gln Gln Ser Asn Trp Thr Phe Asn Asn Thr Glu Ala Asp Tyr Ile Glu  
             35                    40                    45  
  
 Glu Pro Val Ala Leu Lys Phe Ser His Pro Cys Leu Glu Asp His Asn  
             50                    55                    60  
  
 Ser Tyr Cys Ile Asn Gly Ala Cys Ala Phe His His Glu Leu Lys Gln  
             65                    70                    75                    80  
  
 Ala Ile Cys Arg Cys Phe Thr Gly Tyr Thr Gly Gln Arg Cys Glu His  
                     85                    90                    95  
  
 Leu Thr Leu Thr Ser Tyr Ala Val Asp Ser Tyr Glu Lys Tyr Ile Ala  
             100                    105                    110  
  
 Ile Gly Ile Gly Val Gly Leu Leu Ile Ser Ala Phe Leu Ala Val Phe  
             115                    120                    125  
  
 Tyr Cys Tyr Ile Arg Lys Arg Cys Ile Asn Leu Lys Ser Pro Tyr Ile  
             130                    135                    140  
  
 Ile Cys Ser Gly Gly Ser Pro Leu  
     145                    150

<210> 58  
 <211> 354  
 <212> PRT  
 <213> Mus musculus

<400> 58  
 Tyr Pro Gln Asp Ser Ala Arg Val Ala Phe Cys Leu Pro Gly Ser Arg  
     1                    5                    10                    15  
  
 Ala Ser Asn Gln Pro Ala Gly Gly Gly Gly Asp Cys Pro Gly Gly Arg  
             20                    25                    30  
  
 Gly Lys Ser Asn Cys Ser Glu Leu Asn Leu Arg Glu Ser Asp Ile Arg  
             35                    40                    45  
  
 Val Cys Asp Glu Ser Ser Cys Lys Tyr Gly Gly Val Cys Lys Glu Asp  
             50                    55                    60  
  
 Gly Asp Gly Leu Lys Cys Ala Cys Gln Phe Gln Cys His Thr Asn Tyr  
             65                    70                    75                    80  
  
 Ile Pro Val Cys Gly Ser Asn Gly Asp Thr Tyr Gln Asn Glu Cys Phe  
                     85                    90                    95

Leu Arg Arg Ala Ala Cys Lys His Gln Lys Asp Ile Thr Val Val Ala  
                   100                                  105                                  110  
 Arg Gly Pro Cys Tyr Ser Asp Asn Gly Ser Gly Ser Gly Glu Gly Ala  
                   115                                  120                                  125  
 Glu Glu Glu Gly Ser Gly Ala Gly Ala His Arg Lys His Ser Lys Cys  
                   130                                  135                                  140  
 Gly Pro Cys Lys Tyr Lys Ala Glu Cys Asp Glu Asp Ala Glu Asn Val  
                   145                                  150                                  155                                  160  
 Gly Cys Val Cys Asn Ile Asp Cys Ser Gly Tyr Ser Phe Asn Pro Val  
                                   165                                  170                                  175  
 Cys Ala Ser Asp Gly Ser Ser Tyr Asn Asn Pro Cys Phe Val Arg Glu  
                                   180                                  185                                  190  
 Ala Ser Cys Ile Lys Gln Glu Gln Ile Asp Ile Arg His Leu Gly His  
                   195                                  200                                  205  
 Cys Thr Asp Thr Asp Asp Val Ser Ser Leu Gly Lys Lys Asp Pro Gly  
                   210                                  215                                  220  
 Leu Leu Tyr Arg Pro Asp Val Lys Asp Ala Gly Asp Glu Arg Glu Asp  
                   225                                  230                                  235                                  240  
 Val Tyr Ile Gly Ser His Met Pro Cys Pro Glu Asn Leu Asn Gly Tyr  
                                   245                                  250                                  255  
 Cys Ile His Gly Lys Cys Glu Phe Ile Tyr Ser Thr Gln Lys Ala Ser  
                                   260                                  265                                  270  
 Cys Arg Cys Glu Ser Gly Tyr Thr Gly Gln His Cys Glu Lys Thr Asp  
                   275                                  280                                  285  
 Phe Ser Ile Leu Tyr Val Val Pro Ser Arg Gln Lys Leu Thr His Val  
                   290                                  295                                  300  
 Leu Ile Ala Ala Ile Ile Gly Ala Val Gln Ile Ala Ile Ile Val Ala  
                   305                                  310                                  315                                  320  
 Ile Val Met Cys Ile Thr Arg Lys Cys Pro Lys Asn Asn Arg Gly Arg  
                                   325                                  330                                  335  
 Arg Gln Lys Gln Asn Leu Gly His Phe Thr Ser Asp Thr Ser Ser Lys  
                   340                                  345                                  350  
 Met Val

<210> 59  
 <211> 373  
 <212> PRT  
 <213> Rattus norvegicus

<400> 59  
 Met Gly Ala Gln Ala Pro Leu Arg Leu Pro Ala Ala Pro Pro Leu Ala  
   1                                  5                                  10                                  15  
 Val Cys Gly Tyr Thr Ser Val Leu Leu Leu Phe Ala Phe Cys Leu Pro

20										25					30				
Gly	Ser	Gly	Ala	Ser	Asn	Gln	Pro	Ala	Gly	Gly	Gly	Gly	Gly	Asp	Cys	Pro			
		35					40							45					
Gly	Gly	Arg	Gly	Lys	Ser	Ile	Asn	Cys	Ser	Glu	Leu	Asn	Leu	Arg	Glu				
	50					55					60								
Ser	Asp	Ile	Arg	Ala	Cys	Asp	Glu	Ser	Ser	Cys	Lys	Tyr	Gly	Gly	Val				
	65				70					75					80				
Cys	Lys	Glu	Asp	Gly	Asp	Gly	Leu	Lys	Cys	Ala	Cys	Gln	Phe	Gln	Cys				
				85					90					95					
His	Thr	Asn	Tyr	Ile	Pro	Val	Cys	Gly	Ser	Asn	Gly	Asp	Thr	Tyr	Gln				
		100						105					110						
Asn	Glu	Cys	Phe	Leu	Arg	Arg	Ala	Ala	Cys	Lys	His	Gln	Lys	Asp	Ile				
		115					120					125							
Thr	Val	Val	Ala	Arg	Gly	Pro	Cys	Tyr	Ser	Asp	Asn	Gly	Ser	Gly	Ser				
	130					135					140								
Gly	Glu	Gly	Glu	Glu	Glu	Gly	Ser	Gly	Ala	Gly	Ala	His	Arg	Lys	His				
	145				150					155					160				
Ser	Lys	Cys	Gly	Pro	Cys	Lys	Tyr	Lys	Ala	Glu	Cys	Asp	Glu	Asp	Ala				
				165					170					175					
Glu	Asn	Val	Gly	Cys	Val	Cys	Asn	Ile	Asp	Cys	Ser	Gly	Tyr	Ser	Phe				
		180						185					190						
Asn	Pro	Val	Cys	Ala	Ser	Asp	Gly	Ser	Ser	Tyr	Asn	Asn	Pro	Cys	Phe				
		195					200					205							
Val	Arg	Glu	Ala	Ser	Cys	Ile	Arg	Gln	Glu	Gln	Ile	Asp	Ile	Arg	His				
	210					215					220								
Leu	Gly	His	Cys	Thr	Asp	Thr	Asp	Asp	Thr	Ser	Leu	Leu	Gly	Lys	Lys				
	225				230					235					240				
Asp	Asp	Gly	Leu	Gln	Tyr	Arg	Pro	Asp	Val	Lys	Asp	Ala	Gly	Asp	Gln				
				245					250					255					
Arg	Glu	Asp	Val	Tyr	Ile	Gly	Ser	His	Met	Pro	Cys	Pro	Glu	Asn	Leu				
		260						265					270						
Asn	Gly	Tyr	Cys	Ile	His	Gly	Lys	Cys	Glu	Phe	Ile	Tyr	Ser	Thr	Gln				
		275					280					285							
Lys	Ala	Ser	Cys	Arg	Cys	Glu	Ser	Gly	Tyr	Thr	Gly	Gln	His	Cys	Glu				
	290					295					300								
Lys	Thr	Asp	Phe	Ser	Ile	Leu	Tyr	Val	Val	Pro	Ser	Arg	Gln	Lys	Leu				
	305				310						315				320				
Thr	His	Val	Leu	Ile	Ala	Ala	Ile	Ile	Gly	Ala	Val	Gln	Ile	Ala	Ile				
				325					330					335					
Ile	Val	Ala	Ile	Val	Met	Cys	Ile	Thr	Arg	Lys	Cys	Pro	Lys	Asn	Asn				
				340				345						350					



Arg Gly Arg Arg Gln Lys Gln Asn Leu Gly His Phe Thr Ser Glu Thr  
 355 360 365  
  
 Ser Ser Arg Met Val  
 370  
  
 <210> 60  
 <211> 380  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 60  
 Met Gly Ala Ala Ala Ala Glu Ala Pro Leu Arg Leu Pro Ala Ala Pro  
 1 5 10 15  
  
 Pro Leu Ala Phe Cys Cys Tyr Thr Ser Val Leu Leu Leu Phe Ala Phe  
 20 25 30  
  
 Ser Leu Pro Gly Ser Arg Ala Ser Asn Gln Pro Pro Gly Gly Gly Gly  
 35 40 45  
  
 Gly Ser Gly Gly Asp Cys Pro Gly Gly Lys Gly Lys Ser Ile Asn Cys  
 50 55 60  
  
 Ser Glu Leu Asn Val Arg Glu Ser Asp Val Arg Val Cys Asp Glu Ser  
 65 70 75 80  
  
 Ser Cys Lys Tyr Gly Gly Val Cys Lys Glu Asp Gly Asp Gly Leu Lys  
 85 90 95  
  
 Cys Ala Cys Gln Phe Gln Cys His Thr Asn Tyr Ile Pro Val Cys Gly  
 100 105 110  
  
 Ser Asn Gly Asp Thr Tyr Gln Asn Glu Cys Phe Leu Arg Arg Ala Ala  
 115 120 125  
  
 Cys Lys His Gln Lys Glu Ile Thr Val Ile Ala Arg Gly Pro Cys Tyr  
 130 135 140  
  
 Ser Asp Asn Gly Ser Gly Ser Gly Glu Gly Glu Glu Glu Gly Ser Gly  
 145 150 155 160  
  
 Ala Glu Val His Arg Lys His Ser Lys Cys Gly Pro Cys Lys Tyr Lys  
 165 170 175  
  
 Ala Glu Cys Asp Glu Asp Ala Glu Asn Val Gly Cys Val Cys Asn Ile  
 180 185 190  
  
 Asp Cys Ser Gly Tyr Ser Phe Asn Pro Val Cys Ala Ser Asp Gly Ser  
 195 200 205  
  
 Ser Tyr Asn Asn Pro Cys Phe Val Arg Glu Ala Ser Cys Ile Lys Gln  
 210 215 220  
  
 Glu Gln Ile Asp Ile Arg His Leu Gly His Cys Thr Asp Thr Asp Asp  
 225 230 235 240  
  
 Thr Ser Leu Leu Gly Lys Lys Asp Asp Gly Leu Gln Tyr Arg Pro Asp  
 245 250 255  
  
 Val Lys Asp Ala Ser Asp Gln Arg Glu Asp Val Tyr Ile Gly Asn His

260										265					270				
Met	Pro	Cys	Pro	Glu	Asn	Leu	Asn	Gly	Tyr	Cys	Ile	His	Gly	Lys	Cys				
		275					280					285							
Glu	Phe	Ile	Tyr	Ser	Thr	Gln	Lys	Ala	Ser	Cys	Arg	Cys	Glu	Ser	Gly				
		290				295					300								
Tyr	Thr	Gly	Gln	His	Cys	Glu	Lys	Thr	Asp	Phe	Ser	Ile	Leu	Tyr	Val				
305					310					315					320				
Val	Pro	Ser	Arg	Gln	Lys	Leu	Thr	His	Val	Leu	Ile	Ala	Ala	Ile	Ile				
				325					330					335					
Gly	Ala	Val	Gln	Ile	Ala	Ile	Ile	Val	Ala	Ile	Val	Met	Cys	Ile	Thr				
			340					345					350						
Arg	Lys	Cys	Pro	Lys	Asn	Asn	Arg	Gly	Arg	Arg	Gln	Lys	Gln	Asn	Leu				
		355					360					365							
Gly	His	Phe	Thr	Ser	Asp	Thr	Ser	Ser	Arg	Met	Val								
	370					375					380								

<210> 61  
 <211> 81  
 <212> PRT  
 <213> Homo sapiens

<400> 61  
 Met Ala Ala Val Ala Ala Ala Ser Ala Glu Leu Leu Ile Ile Gly Trp  
 1 5 10 15  
 Tyr Ile Phe Arg Val Leu Leu Gln Val Phe Leu Glu Cys Cys Ile Tyr  
 20 25 30  
 Trp Val Gly Phe Ala Phe Arg Asn Pro Pro Gly Thr Gln Pro Ile Ala  
 35 40 45  
 Arg Ser Glu Val Phe Arg Tyr Ser Leu Gln Lys Leu Ala Tyr Thr Val  
 50 55 60  
 Ser Arg Thr Gly Arg Gln Val Leu Gly Glu Arg Arg Gln Arg Ala Pro  
 65 70 75 80

Asn

<210> 62  
 <211> 81  
 <212> PRT  
 <213> Mus musculus

<400> 62  
 Met Ala Ala Val Ala Ala Ala Ser Ala Glu Leu Leu Ile Ile Gly Trp  
 1 5 10 15  
 Tyr Ile Phe Arg Val Leu Leu Gln Val Phe Leu Glu Cys Cys Ile Tyr  
 20 25 30  
 Trp Val Gly Phe Ala Phe Arg Asn Pro Pro Gly Thr Gln Pro Ile Ala

35 40 45

Arg Ser Glu Val Phe Arg Tyr Ser Leu Gln Lys Leu Ala His Thr Val  
50 55 60

Ser Arg Thr Gly Arg Gln Val Leu Gly Glu Arg Arg Gln Arg Ala Pro  
65 70 75 80

Asn

<210> 63  
<211> 81  
<212> PRT  
<213> Rattus norvegicus

<400> 63

Met Ala Ala Val Ala Ala Ala Ser Ala Glu Leu Leu Ile Ile Gly Trp  
1 5 10 15

Tyr Ile Phe Arg Val Leu Leu Gln Val Phe Leu Glu Cys Cys Ile Tyr  
20 25 30

Trp Val Gly Phe Ala Phe Arg Asn Pro Pro Gly Thr Gln Pro Ile Ala  
35 40 45

Arg Ser Glu Val Phe Arg Tyr Ser Leu Gln Lys Leu Ala His Thr Val  
50 55 60

Ser Arg Thr Gly Arg Gln Val Leu Gly Glu Arg Arg His Arg Ala Pro  
65 70 75 80

Asn

<210> 64  
<211> 208  
<212> PRT  
<213> Mus musculus

<400> 64

Met Ala Ala Val Ala Ala Ala Ser Ala Glu Leu Leu Ile Ile Gly Trp  
1 5 10 15

Tyr Ile Phe Arg Val Leu Leu Gln Val Phe Leu Glu Cys Cys Ile Tyr  
20 25 30

Trp Val Gly Phe Ala Phe Arg Asn Pro Pro Gly Thr Gln Pro Ile Ala  
35 40 45

Arg Ser Glu Val Phe Arg Tyr Ser Leu Gln Lys Leu Ala His Thr Val  
50 55 60

Ser Arg Thr Gly Arg Gln Val Leu Gly Glu Arg Ser Ser Glu Pro Pro  
65 70 75 80

Thr Glu Ala Pro Ala Pro Ser Pro Gly Arg Pro Cys His Gln Val Leu  
85 90 95

Leu Cys Phe Ser Thr Ala Trp Glu Pro Val Pro Arg Arg Asn Gly Gly

100	105	110
Ser Leu Cys Leu Leu Val Arg Val Ala Leu Ala Lys Val Ser Glu Gly 115 120 125		
Pro Val Ala Pro Arg Lys Ala Ala Pro Thr Met Met Lys Ile Ser Val 130 135 140		
Pro Phe Pro Ala Pro Leu Pro Leu Ser His Tyr Arg Arg Val Gly Glu 145 150 155 160		
Glu Gly Gly Arg Gly Glu Gln Pro Ser Arg Tyr Gly Arg Arg His His 165 170 175		
Ile Leu Ile Trp Thr Lys Ser Glu Gln Tyr His Leu Ser Arg Thr Arg 180 185 190		
Ser Tyr His Glu Asp Arg Thr Ala His Gln Pro Ala Glu Trp Thr Phe 195 200 205		

<210> 65  
 <211> 55  
 <212> PRT  
 <213> Mus musculus

<400> 65  
 Met Val Pro Lys Val Ala Ala Ala Ser Ala Glu Leu Leu Ile Ile Gly  
 1 5 10 15  
 Trp Tyr Ile Phe Arg Val Leu Leu Gln Val Phe Arg Tyr Ser Leu Gln  
 20 25 30  
 Lys Leu Ala His Thr Val Ser Arg Thr Gly Arg Gln Val Leu Gly Glu  
 35 40 45  
 Arg Arg Gln Arg Ala Pro Asn  
 50 55

<210> 66  
 <211> 394  
 <212> PRT  
 <213> Homo sapiens

<400> 66  
 Met Ala Met Ala Tyr Leu Ala Trp Arg Leu Ala Arg Arg Ser Cys Pro  
 1 5 10 15  
 Ser Ser Leu Gln Val Thr Ser Phe Pro Val Val Gln Leu His Met Asn  
 20 25 30  
 Arg Thr Ala Met Arg Ala Ser Gln Lys Asp Phe Glu Asn Ser Met Asn  
 35 40 45  
 Gln Val Lys Leu Leu Lys Lys Asp Pro Gly Asn Glu Val Lys Leu Lys  
 50 55 60  
 Leu Tyr Ala Leu Tyr Lys Gln Ala Thr Glu Gly Pro Cys Asn Met Pro

65	70	75	80
Lys Pro Gly Val Phe Asp Leu Ile Asn Lys Ala Lys Trp Asp Ala Trp	85	90	95
Asn Ala Leu Gly Ser Leu Pro Lys Glu Ala Ala Arg Gln Asn Tyr Val	100	105	110
Asp Leu Val Ser Ser Leu Cys Pro Ser Leu Glu Ser Ser Ser Gln Val	115	120	125
Glu Pro Gly Thr Asp Arg Lys Ser Thr Gly Phe Glu Thr Leu Val Val	130	135	140
Thr Ser Glu Asp Gly Ile Thr Lys Ile Met Phe Asn Arg Pro Lys Lys	145	150	155
Lys Asn Ala Ile Asn Thr Glu Met Tyr His Glu Ile Met Arg Ala Leu	165	170	175
Lys Ala Ala Ser Lys Asp Asp Ser Ile Ile Thr Val Leu Thr Gly Asn	180	185	190
Gly Asp Tyr Tyr Ser Ser Gly Asn Asp Leu Thr Asn Phe Thr Asp Ile	195	200	205
Pro Pro Gly Gly Val Glu Glu Lys Ala Lys Asn Asn Ala Val Leu Leu	210	215	220
Arg Glu Phe Val Gly Cys Phe Ile Asp Phe Pro Lys Pro Leu Ile Ala	225	230	235
Val Val Asn Gly Pro Ala Val Gly Ile Ser Val Thr Leu Leu Gly Leu	245	250	255
Phe Asp Ala Val Tyr Ala Ser Asp Arg Ala Thr Phe His Thr Pro Phe	260	265	270
Ser His Leu Gly Gln Ser Pro Glu Gly Cys Ser Ser Tyr Thr Phe Pro	275	280	285
Lys Ile Met Ser Pro Ala Lys Ala Thr Glu Met Leu Ile Phe Gly Lys	290	295	300
Lys Leu Thr Ala Gly Glu Ala Cys Ala Gln Gly Leu Val Thr Glu Val	305	310	315
Phe Pro Asp Ser Thr Phe Gln Lys Glu Val Trp Thr Arg Leu Lys Ala	325	330	335
Phe Ala Lys Leu Pro Pro Asn Ala Leu Arg Ile Ser Lys Glu Val Ile	340	345	350
Arg Lys Arg Glu Arg Glu Lys Leu His Ala Val Asn Ala Glu Glu Cys	355	360	365
Asn Val Leu Gln Gly Arg Trp Leu Ser Asp Glu Cys Thr Asn Ala Val	370	375	380
Val Asn Phe Leu Ser Arg Lys Ser Lys Leu	385	390	

<210> 67  
 <211> 394  
 <212> PRT  
 <213> Homo sapiens

<400> 67

Met	Ala	Met	Ala	Tyr	Leu	Ala	Trp	Arg	Leu	Ala	Arg	Arg	Ser	Cys	Pro
1				5					10					15	
Ser	Ser	Leu	Gln	Val	Thr	Ser	Phe	Pro	Val	Val	Gln	Leu	His	Met	Asn
			20					25					30		
Arg	Thr	Ala	Met	Arg	Ala	Ser	Gln	Lys	Asp	Phe	Glu	Asn	Ser	Met	Asn
		35					40					45			
Gln	Val	Lys	Leu	Leu	Lys	Lys	Asp	Pro	Gly	Asn	Glu	Val	Lys	Leu	Lys
	50					55					60				
Leu	Tyr	Ala	Leu	Tyr	Lys	Gln	Ala	Thr	Glu	Gly	Pro	Cys	Asn	Met	Pro
65					70					75				80	
Lys	Pro	Gly	Val	Phe	Asp	Leu	Ile	Asn	Lys	Ala	Lys	Trp	Asp	Ala	Trp
				85				90						95	
Asn	Ala	Leu	Gly	Ser	Leu	Pro	Lys	Glu	Ala	Ala	Arg	Gln	Asn	Tyr	Val
		100						105					110		
Asp	Leu	Val	Ser	Ser	Leu	Ser	Pro	Ser	Leu	Glu	Ser	Ser	Ser	Gln	Val
	115						120					125			
Glu	Pro	Gly	Thr	Asp	Arg	Lys	Ser	Thr	Gly	Phe	Glu	Thr	Leu	Val	Val
	130					135					140				
Thr	Ser	Glu	Asp	Gly	Ile	Thr	Lys	Ile	Met	Phe	Asn	Arg	Pro	Lys	Lys
145					150					155				160	
Lys	Asn	Ala	Ile	Asn	Thr	Glu	Met	Tyr	His	Glu	Ile	Met	Arg	Ala	Leu
			165					170						175	
Lys	Ala	Ala	Ser	Lys	Asp	Asp	Ser	Ile	Ile	Thr	Val	Leu	Thr	Gly	Asn
		180						185					190		
Gly	Asp	Tyr	Tyr	Ser	Ser	Gly	Asn	Asp	Leu	Thr	Asn	Phe	Thr	Asp	Ile
	195						200					205			
Pro	Pro	Gly	Gly	Val	Glu	Glu	Lys	Ala	Lys	Asn	Asn	Ala	Val	Leu	Leu
	210					215					220				
Arg	Glu	Phe	Val	Gly	Cys	Phe	Ile	Asp	Phe	Pro	Lys	Pro	Leu	Ile	Ala
225					230					235				240	
Val	Val	Asn	Gly	Pro	Ala	Val	Gly	Ile	Ser	Val	Thr	Leu	Leu	Gly	Leu
			245					250						255	
Phe	Asp	Ala	Val	Tyr	Ala	Ser	Asp	Arg	Ala	Thr	Phe	His	Thr	Pro	Phe
		260						265					270		
Ser	His	Leu	Gly	Gln	Ser	Pro	Glu	Gly	Cys	Ser	Ser	Tyr	Thr	Phe	Pro
		275					280					285			
Lys	Ile	Met	Ser	Pro	Ala	Lys	Ala	Thr	Glu	Met	Leu	Ile	Phe	Gly	Lys

290	295	300
Lys Leu Thr Ala Gly Glu Ala Cys Ala Gln Gly Leu Val Thr Glu Val 305 310 315 320		
Phe Pro Asp Ser Thr Phe Gln Lys Glu Val Trp Thr Arg Leu Lys Ala 325 330 335		
Phe Ala Lys Leu Pro Pro Asn Ala Leu Arg Ile Ser Lys Glu Val Ile 340 345 350		
Arg Lys Arg Glu Arg Glu Lys Leu His Ala Val Asn Ala Glu Glu Cys 355 360 365		
Asn Val Leu Gln Gly Arg Trp Leu Ser Asp Glu Cys Thr Asn Ala Val 370 375 380		
Val Asn Phe Leu Ser Arg Lys Ser Lys Leu 385 390		
<210> 68		
<211> 374		
<212> PRT		
<213> Homo sapiens		
<400> 68		
Val Thr Ser Phe Pro Val Val Gln Leu His Met Asn Arg Thr Ala Met 1 5 10 15		
Arg Ala Ser Gln Lys Asp Phe Glu Asn Ser Met Asn Gln Val Lys Leu 20 25 30		
Leu Lys Lys Asp Pro Gly Asn Glu Val Lys Leu Lys Leu Tyr Ala Leu 35 40 45		
Tyr Lys Gln Ala Thr Glu Gly Pro Cys Asn Met Pro Lys Pro Gly Val 50 55 60		
Phe Asp Leu Ile Asn Lys Ala Lys Trp Asp Ala Trp Asn Ala Leu Gly 65 70 75 80		
Ser Leu Pro Lys Glu Ala Ala Arg Gln Asn Tyr Val Asp Leu Val Ser 85 90 95		
Ser Leu Ser Pro Ser Leu Glu Ser Ser Ser Gln Val Glu Pro Gly Thr 100 105 110		
Asp Arg Lys Ser Thr Gly Phe Glu Thr Leu Val Val Thr Ser Glu Asp 115 120 125		
Gly Ile Thr Lys Ile Met Phe Asn Arg Pro Lys Lys Lys Asn Ala Ile 130 135 140		
Asn Thr Glu Met Tyr His Glu Ile Met Arg Ala Leu Lys Ala Ala Ser 145 150 155 160		
Lys Asp Asp Ser Ile Ile Thr Val Leu Thr Gly Asn Gly Asp Tyr Tyr 165 170 175		
Ser Ser Gly Asn Asp Leu Thr Asn Phe Thr Asp Ile Pro Pro Gly Gly 180 185 190		

Val Glu Glu Lys Ala Lys Asn Asn Ala Val Leu Leu Arg Glu Phe Val  
 195 200 205  
 Gly Cys Phe Ile Asp Phe Pro Lys Pro Leu Ile Ala Val Val Asn Gly  
 210 215 220  
 Pro Ala Val Gly Ile Ser Val Thr Leu Leu Gly Leu Phe Asp Ala Val  
 225 230 235 240  
 Tyr Ala Ser Asp Arg Ala Thr Phe His Thr Pro Phe Ser His Leu Gly  
 245 250 255  
 Gln Ser Pro Glu Gly Cys Ser Ser Tyr Thr Phe Pro Lys Ile Met Ser  
 260 265 270  
 Pro Ala Lys Ala Thr Glu Met Leu Ile Phe Gly Lys Lys Leu Thr Ala  
 275 280 285  
 Gly Glu Ala Cys Ala Gln Gly Leu Val Thr Glu Val Phe Pro Asp Ser  
 290 295 300  
 Thr Phe Gln Lys Glu Val Trp Thr Arg Leu Lys Ala Phe Ala Lys Leu  
 305 310 315 320  
 Pro Pro Asn Ala Leu Arg Ile Ser Lys Glu Val Ile Arg Lys Arg Glu  
 325 330 335  
 Arg Glu Lys Leu His Ala Val Asn Ala Glu Glu Cys Asn Val Leu Gln  
 340 345 350  
 Gly Arg Trp Leu Ser Asp Glu Cys Thr Asn Ala Val Val Asn Phe Leu  
 355 360 365  
 Ser Arg Lys Ser Lys Leu  
 370

<210> 69  
 <211> 348  
 <212> PRT  
 <213> Homo sapiens

<400> 69  
 Met Leu Leu Ser Ile Leu Val Ala Leu Cys Leu Trp Leu Arg Leu Ala  
 1 5 10 15  
 Leu Gly Val Arg Gly Ala Pro Cys Glu Ala Val Arg Ile Pro Met Cys  
 20 25 30  
 Arg His Met Pro Trp Asn Ile Thr Arg Met Pro Asn His Leu His His  
 35 40 45  
 Ser Thr Gln Glu Asn Ala Ile Leu Ala Ile Gly Gln Tyr Glu Glu Leu  
 50 55 60  
 Val Asp Val Asn Cys Ser Ser Val Leu Ser Phe Phe Leu Cys Ala Met  
 65 70 75 80  
 Tyr Ala Pro Ile Cys Thr Leu Glu Phe Leu His Asp Pro Ile Lys Pro  
 85 90 95



Cys Lys Ser Val Cys Gln Arg Ala Arg Asp Asp Cys Glu Pro Leu Met  
 100 105 110  
 Lys Met Tyr Asn His Ser Trp Pro Glu Ser Leu Ala Cys Asp Glu Leu  
 115 120 125  
 Pro Val Tyr Asp Arg Gly Val Cys Ile Ser Pro Glu Ala Ile Val Thr  
 130 135 140  
 Asp Leu Pro Glu Asp Val Lys Trp Ile Asp Ile Thr Pro Asp Met Met  
 145 150 155 160  
 Val Gln Glu Arg Ser Phe Asp Ala Asp Cys Lys His Leu Ser Pro Asp  
 165 170 175  
 Arg Cys Lys Cys Lys Lys Val Lys Pro Thr Leu Ala Thr Tyr Leu Ser  
 180 185 190  
 Lys Asn Tyr Ser Tyr Val Ile His Ala Lys Ile Lys Ala Val Gln Arg  
 195 200 205  
 Ser Gly Cys Asn Glu Val Thr Thr Val Val Asp Val Lys Glu Ile Phe  
 210 215 220  
 Lys Ser Ser Ser Pro Ile Pro Arg Thr Gln Val Pro Leu Ile Thr Asn  
 225 230 235 240  
 Ser Ser Cys Gln Cys Pro His Ile Leu Pro His Gln Asp Val Leu Ile  
 245 250 255  
 Met Cys Tyr Glu Arg Arg Ser Arg Met Met Leu Leu Glu Asn Cys Leu  
 260 265 270  
 Val Glu Lys Trp Arg Asp Gln Leu Ser Arg Arg Ser Thr Gln Trp Glu  
 275 280 285  
 Glu Arg Leu Gln Glu Gln Gln Arg Thr Thr Gln Asp Lys Lys Gln Ile  
 290 295 300  
 Ala Ser Arg Thr Ser Arg Ser Asn Pro Pro Lys Pro Lys Gly Arg Ser  
 305 310 315 320  
 Pro Ala Ser Lys Pro Ala Ser Pro Lys Lys Asn Ile Lys Ala Arg Ser  
 325 330 335  
 Ala Pro Lys Lys Ser Asn Pro Lys Lys Ser Thr Ser  
 340 345

<210> 70

<211> 364

<212> PRT

<213> Homo sapiens

<400> 70

Met Asn Arg Thr Ala Met Arg Ala Ser Gln Lys Asp Phe Glu Asn Ser  
 1 5 10 15

Met Asn Gln Val Lys Leu Leu Lys Lys Asp Pro Gly Asn Glu Val Lys  
 20 25 30

Leu Lys Leu Tyr Ala Leu Tyr Lys Gln Ala Thr Glu Gly Pro Cys Asn

35					40					45					
Met	Pro	Lys	Pro	Gly	Val	Phe	Asp	Leu	Ile	Asn	Lys	Ala	Lys	Trp	Asp
50						55					60				
Ala	Trp	Asn	Ala	Leu	Gly	Ser	Leu	Pro	Lys	Glu	Ala	Ala	Arg	Gln	Asn
65					70					75					80
Tyr	Val	Asp	Leu	Val	Ser	Ser	Leu	Ser	Pro	Ser	Leu	Glu	Ser	Ser	Ser
				85					90					95	
Gln	Val	Glu	Pro	Gly	Thr	Asp	Arg	Lys	Ser	Thr	Gly	Phe	Glu	Thr	Leu
			100					105					110		
Val	Val	Thr	Ser	Glu	Asp	Gly	Ile	Thr	Lys	Ile	Met	Phe	Asn	Arg	Pro
		115					120					125			
Lys	Lys	Lys	Asn	Ala	Ile	Asn	Thr	Glu	Met	Tyr	His	Glu	Ile	Met	Arg
	130					135					140				
Ala	Leu	Lys	Ala	Ala	Ser	Lys	Asp	Asp	Ser	Ile	Ile	Thr	Val	Leu	Thr
145					150					155					160
Gly	Asn	Gly	Asp	Cys	Tyr	Ser	Ser	Gly	Asn	Asp	Leu	Thr	Asn	Phe	Thr
				165					170					175	
Asp	Ile	Pro	Pro	Gly	Gly	Val	Glu	Glu	Lys	Ala	Lys	Asn	Asn	Ala	Val
			180					185					190		
Leu	Leu	Arg	Glu	Phe	Val	Gly	Cys	Phe	Ile	Asp	Phe	Pro	Lys	Pro	Leu
		195					200					205			
Ile	Ala	Val	Val	Asn	Gly	Pro	Ala	Val	Gly	Ile	Ser	Val	Thr	Leu	Leu
	210					215					220				
Gly	Leu	Phe	Asp	Ala	Val	Tyr	Ala	Ser	Asp	Arg	Ala	Thr	Phe	His	Thr
225				230					235						240
Pro	Phe	Ser	His	Leu	Gly	Gln	Ser	Pro	Glu	Gly	Cys	Ser	Ser	Tyr	Thr
				245					250					255	
Phe	Pro	Lys	Ile	Met	Ser	Pro	Ala	Lys	Ala	Thr	Glu	Met	Leu	Ile	Phe
			260					265					270		
Gly	Lys	Lys	Leu	Thr	Ala	Gly	Glu	Ala	Cys	Ala	Gln	Gly	Leu	Val	Thr
	275						280				285				
Glu	Val	Phe	Pro	Asp	Ser	Thr	Phe	Gln	Lys	Glu	Val	Trp	Thr	Arg	Leu
	290					295					300				
Lys	Ala	Phe	Ala	Lys	Leu	Pro	Pro	Asn	Val	Leu	Arg	Ile	Ser	Lys	Glu
305					310					315					320
Val	Ile	Arg	Lys	Arg	Glu	Arg	Glu	Lys	Leu	His	Ala	Val	Asn	Ala	Glu
				325					330					335	
Glu	Cys	Asn	Val	Leu	Gln	Gly	Arg	Trp	Leu	Ser	Asp	Glu	Cys	Thr	Asn
			340					345					350		
Ala	Val	Val	Asn	Phe	Leu	Ser	Arg	Lys	Ser	Lys	Leu				
			355				360								

<210> 71  
 <211> 966  
 <212> PRT  
 <213> Mus musculus

<400> 71

Met	Ala	Lys	Gly	Phe	Tyr	Ile	Ser	Lys	Thr	Leu	Gly	Ile	Leu	Gly	Ile
1				5					10					15	
Leu	Leu	Gly	Val	Ala	Ala	Val	Cys	Thr	Ile	Ile	Ala	Leu	Ser	Val	Val
			20					25					30		
Tyr	Ala	Gln	Glu	Lys	Asn	Arg	Asn	Ala	Glu	Asn	Ser	Ala	Thr	Ala	Pro
		35					40					45			
Thr	Leu	Pro	Gly	Ser	Thr	Ser	Ala	Thr	Thr	Ala	Thr	Thr	Thr	Pro	Ala
	50					55					60				
Val	Asp	Glu	Ser	Lys	Pro	Trp	Asn	Gln	Tyr	Arg	Leu	Pro	Lys	Thr	Leu
65					70					75					80
Ile	Pro	Asp	Ala	Tyr	Arg	Val	Ile	Leu	Arg	Pro	Tyr	Leu	Thr	Pro	Asn
				85					90					95	
Asn	Gln	Gly	Leu	Tyr	Ile	Phe	Gln	Gly	Asn	Ser	Thr	Val	Arg	Phe	Thr
		100						105					110		
Cys	Asn	Gln	Thr	Thr	Asp	Val	Ile	Ile	Ile	His	Ser	Lys	Lys	Leu	Asn
	115						120					125			
Tyr	Thr	Leu	Lys	Gly	Asn	His	Arg	Val	Val	Leu	Arg	Thr	Leu	Asp	Gly
	130					135					140				
Thr	Pro	Ala	Pro	Asn	Ile	Asp	Lys	Thr	Glu	Leu	Val	Glu	Arg	Thr	Glu
145				150						155					160
Tyr	Leu	Val	Val	His	Leu	Gln	Gly	Ser	Leu	Val	Glu	Gly	Arg	Gln	Tyr
			165						170					175	
Glu	Met	Asp	Ser	Gln	Phe	Gln	Gly	Glu	Leu	Ala	Asp	Asp	Leu	Ala	Gly
		180						185					190		
Phe	Tyr	Arg	Ser	Glu	Tyr	Met	Glu	Gly	Asp	Val	Lys	Lys	Val	Val	Ala
	195						200					205			
Thr	Thr	Gln	Met	Gln	Ala	Ala	Asp	Ala	Arg	Lys	Ser	Phe	Pro	Cys	Phe
	210					215					220				
Asp	Glu	Pro	Ala	Met	Lys	Ala	Met	Phe	Asn	Ile	Thr	Leu	Ile	Tyr	Pro
225					230					235					240
Asn	Asn	Leu	Ile	Ala	Leu	Ser	Asn	Met	Leu	Pro	Lys	Glu	Ser	Lys	Pro
			245						250					255	
Tyr	Pro	Glu	Asp	Pro	Ser	Cys	Thr	Met	Thr	Glu	Phe	His	Ser	Thr	Pro
		260						265					270		
Lys	Met	Ser	Thr	Tyr	Leu	Leu	Ala	Tyr	Ile	Val	Ser	Glu	Phe	Lys	Asn
	275						280					285			
Ile	Ser	Ser	Val	Ser	Ala	Asn	Gly	Val	Gln	Ile	Gly	Ile	Trp	Ala	Arg

290	295	300
Pro Ser Ala Ile Asp 305	Glu Gly Gln Gly Asp 310	Tyr Ala Leu Asn Val Thr 315 320
Gly Pro Ile Leu 325	Asn Phe Phe Ala Gln 330	His Tyr Asn Thr Ser Tyr Pro 335
Leu Pro Lys Ser 340	Asp Gln Ile Ala Leu 345	Pro Asp Phe Asn Ala Gly Ala 350
Met Glu Asn Trp 355	Gly Leu Val Thr 360	Tyr Arg Glu Ser Ser Leu Val Phe 365
Asp Ser Gln Ser Ser 370	Ser Ile Ser Asn Lys 375	Glu Arg Val Val Thr Val 380
Ile Ala His Glu Leu 385	Ala His Gln Trp Phe 390	Gly Asn Leu Val Thr Val 395 400
Ala Trp Trp Asn 405	Asp Leu Trp Leu Asn 410	Glu Gly Phe Ala Ser Tyr Val 415
Glu Tyr Leu Gly 420	Ala Asp Tyr Ala Glu 425	Pro Thr Trp Asn Leu Lys Asp 430
Leu Met Val Leu 435	Asn Asp Val Tyr 440	Arg Val Met Ala Val Asp Ala Leu 445
Ala Ser Ser His 450	Pro Leu Ser Ser 455	Pro Ala Asp Glu Ile Lys Thr Pro 460
Asp Gln Ile Met 465	Glu Leu Phe Asp Ser 470	Ile Thr Tyr Ser Lys Gly Ala 475 480
Ser Val Ile Arg 485	Met Leu Ser Ser 490	Phe Leu Thr Glu Asp Leu Phe Lys 495
Lys Gly Leu Ser 500	Ser Tyr Leu His 505	Thr Tyr Gln Tyr Ser Asn Thr Val 510
Tyr Leu Asp Leu 515	Trp Glu His Leu 520	Gln Lys Ala Val Asn Gln Gln Thr 525
Ala Val Gln Pro 530	Pro Ala Thr Val 535	Arg Thr Ile Met Asp Arg Trp Ile 540
Leu Gln Met Gly 545	Phe Pro Val Ile 550	Thr Val Asn Thr Asn Thr Gly Glu 555 560
Ile Ser Gln Lys 565	His Phe Leu Leu 570	Asp Ser Lys Ser Asn Val Thr Arg 575
Pro Ser Glu Phe 580	Asn Tyr Ile Trp 585	Ile Ala Pro Ile Pro Phe Leu Lys 590
Ser Gly Gln Glu 595	Asp His Tyr Trp 600	Leu Asp Val Glu Lys Asn Gln Ser 605
Ala Lys Phe Gln 610	Thr Ser Ser Asn 615	Glu Trp Ile Leu Leu Asn Ile Asn 620

Val Thr Gly Tyr Tyr Leu Val Asn Tyr Asp Glu Asn Asn Trp Lys Lys  
625 630 635 640  
Leu Gln Asn Gln Leu Gln Thr Asp Leu Ser Val Ile Pro Val Ile Asn  
645 650 655  
Arg Ala Gln Ile Ile His Asp Ser Phe Asn Leu Ala Ser Ala Lys Met  
660 665 670  
Ile Pro Ile Thr Leu Ala Leu Asp Asn Thr Leu Phe Leu Val Lys Glu  
675 680 685  
Ala Glu Tyr Met Pro Trp Gln Ala Ala Leu Ser Ser Leu Asn Tyr Phe  
690 695 700  
Thr Leu Met Phe Asp Arg Ser Glu Val Tyr Gly Pro Met Lys Arg Tyr  
705 710 715 720  
Leu Lys Lys Gln Val Thr Pro Leu Phe Phe Tyr Phe Gln Asn Arg Thr  
725 730 735  
Asn Asn Trp Val Asn Arg Pro Pro Thr Leu Met Glu Gln Tyr Asn Glu  
740 745 750  
Ile Asn Ala Ile Ser Thr Ala Cys Ser Ser Gly Leu Lys Glu Cys Arg  
755 760 765  
Asp Leu Val Val Glu Leu Tyr Ser Gln Trp Met Lys Asn Pro Asn Asn  
770 775 780  
Asn Thr Ile His Pro Asn Leu Arg Ser Thr Val Tyr Cys Asn Ala Ile  
785 790 795 800  
Ala Phe Gly Gly Glu Glu Glu Trp Asn Phe Ala Trp Glu Gln Phe Arg  
805 810 815  
Asn Ala Thr Leu Val Asn Glu Ala Asp Lys Leu Arg Ser Ala Leu Ala  
820 825 830  
Cys Ser Lys Asp Val Trp Ile Leu Asn Arg Tyr Leu Ser Tyr Thr Leu  
835 840 845  
Asn Pro Asp Tyr Ile Arg Lys Gln Asp Thr Thr Ser Thr Ile Ile Ser  
850 855 860  
Ile Ala Ser Asn Val Ala Gly His Pro Leu Val Trp Asp Phe Val Arg  
865 870 875 880  
Ser Asn Trp Lys Lys Leu Phe Glu Asn Tyr Gly Gly Gly Ser Phe Ser  
885 890 895  
Phe Ala Asn Leu Ile Gln Gly Val Thr Arg Arg Phe Ser Ser Glu Phe  
900 905 910  
Glu Leu Gln Gln Leu Glu Gln Phe Lys Ala Asp Asn Ser Ala Thr Gly  
915 920 925  
Phe Gly Thr Gly Thr Arg Ala Leu Glu Gln Ala Leu Glu Lys Thr Arg  
930 935 940  
Ala Asn Ile Asp Trp Val Lys Glu Asn Lys Asp Ala Val Phe Lys Trp  
945 950 955 960

Phe Thr Glu Asn Ser Ser  
965

<210> 72  
<211> 966  
<212> PRT  
<213> *Oryzctolagus cuniculus*

<400> 72  
Met Ala Lys Gly Phe Tyr Ile Ser Lys Ser Leu Gly Ile Leu Gly Ile  
1 5 10 15  
Leu Leu Gly Val Ala Ala Leu Cys Thr Ile Val Ala Leu Ser Val Val  
20 25 30  
Tyr Arg Gln Glu Lys Asn Lys Asn Thr Ser Gln Ser Pro Ser Met Ala  
35 40 45  
Pro Leu Asn Pro Thr Ala Thr Ser Ser Pro Ala Thr Thr Leu Asp Gln  
50 55 60  
Asn Leu Pro Trp Asn Arg Tyr Arg Leu Pro Lys Thr Leu Ile Pro Asp  
65 70 75 80  
Ser Tyr Asn Val Val Leu Arg Pro Tyr Leu Ser Pro Asn Ser Gln Gly  
85 90 95  
Leu Tyr Ile Phe Thr Gly Ser Ser Thr Val Arg Phe Thr Cys Gln Glu  
100 105 110  
Ala Thr Asn Val Ile Ile Ile His Ser Lys Lys Leu Asn Tyr Thr Ile  
115 120 125  
Thr Gln Gly His Arg Val Val Leu Arg Gly Val Arg Gly Ser Gln Pro  
130 135 140  
Pro Ala Ile Ala Ser Thr Glu Leu Val Glu Leu Thr Glu Tyr Leu Val  
145 150 155 160  
Val His Leu Gln Gly Gln Leu Val Ala Gly Ser Gln Tyr Glu Met Asp  
165 170 175  
Thr Gln Phe Gln Gly Glu Leu Ala Asp Asp Leu Ala Gly Phe Tyr Arg  
180 185 190  
Ser Glu Tyr Met Glu Gly Asn Val Arg Lys Val Val Ala Thr Thr Gln  
195 200 205  
Met Gln Ala Ala Asp Ala Arg Lys Ser Phe Pro Cys Phe Asp Glu Pro  
210 215 220  
Ala Met Lys Ala Thr Phe Asn Ile Thr Pro Ile His Pro Arg Asp Tyr  
225 230 235 240  
Thr Ala Leu Ser Asn Met Leu Pro Arg Ser Ser Thr Ala Leu Pro Glu  
245 250 255  
Asp Pro Asn Trp Thr Val Thr Glu Phe His Thr Thr Pro Lys Met Ser  
260 265 270

Thr Tyr Leu Leu Ala Tyr Ile Val Ser Glu Phe Thr Asn Ile Glu Ala  
 275 280 285  
 Gln Ser Pro Asn Asn Val Gln Ile Arg Ile Trp Ala Arg Pro Ser Ala  
 290 295 300  
 Ile Ser Glu Gly His Gly Gln Tyr Ala Leu Asn Val Thr Gly Pro Ile  
 305 310 315 320  
 Leu Asn Phe Phe Ala Asn His Tyr Asn Thr Pro Tyr Pro Leu Glu Lys  
 325 330 335  
 Ser Asp Gln Ile Gly Leu Pro Asp Phe Asn Ala Gly Ala Met Glu Asn  
 340 345 350  
 Trp Gly Leu Val Thr Tyr Arg Glu Ser Ala Leu Leu Phe Asp Pro Leu  
 355 360 365  
 Val Ser Ser Ile Ser Asn Lys Glu Arg Val Val Thr Val Val Ala His  
 370 375 380  
 Glu Leu Ala His Gln Trp Phe Gly Asn Leu Val Thr Val Asp Trp Trp  
 385 390 395 400  
 Asn Asp Leu Trp Leu Asn Glu Gly Phe Ala Ser Tyr Val Glu Tyr Leu  
 405 410 415  
 Gly Ala Asp Tyr Ala Glu Pro Thr Trp Asn Leu Lys Asp Leu Ile Val  
 420 425 430  
 Leu Asn Glu Leu His Ser Val Met Ala Val Asp Ala Leu Ala Ser Ser  
 435 440 445  
 His Pro Leu Ser Ser Pro Ala Asp Glu Val Asn Thr Pro Ala Gln Ile  
 450 455 460  
 Ser Glu Leu Phe Asp Ser Ile Thr Tyr Ser Lys Gly Ala Ser Val Leu  
 465 470 475 480  
 Arg Met Leu Ser Ser Phe Leu Thr Glu Asp Leu Phe Lys Glu Gly Leu  
 485 490 495  
 Ala Ser Tyr Leu His Thr Phe Ala Tyr Gln Asn Thr Ile Tyr Leu Asp  
 500 505 510  
 Leu Trp Glu His Leu Gln Gln Ala Val Asn Ser Gln Ser Ala Ile Gln  
 515 520 525  
 Leu Pro Ala Ser Val Arg Asp Ile Met Asp Arg Trp Ile Leu Gln Met  
 530 535 540  
 Gly Phe Pro Val Val Thr Val Asn Thr Thr Asn Gly Ile Ile Ser Gln  
 545 550 555 560  
 His His Phe Leu Leu Asp Pro Thr Ser Asn Val Thr Arg Pro Ser Asp  
 565 570 575  
 Phe Asn Tyr Leu Trp Ile Val Pro Val Ser Ser Met Arg Asn Gly Val  
 580 585 590  
 Leu Glu Gln Glu Phe Trp Leu Glu Gly Val Glu Gln Thr Gln Asn Ser  
 595 600 605

Leu Phe Arg Val Glu Gly Asp Asn Asn Trp Ile Leu Ala Asn Leu Asn  
 610 615 620  
 Val Thr Gly Tyr Tyr Gln Val Asn Tyr Asp Glu Gly Asn Trp Lys Lys  
 625 630 635 640  
 Leu Gln Thr Gln Leu Gln Thr Asn Pro Ser Val Ile Pro Val Ile Asn  
 645 650 655  
 Arg Ala Gln Ile Ile His Asp Ala Phe Asn Leu Ala Ser Ala Gln Lys  
 660 665 670  
 Val Pro Val Thr Leu Ala Leu Asp Asn Thr Leu Phe Leu Ile Arg Glu  
 675 680 685  
 Thr Glu Tyr Met Pro Trp Gln Ala Ala Leu Ser Ser Leu Asn Tyr Phe  
 690 695 700  
 Lys Leu Met Phe Asp Arg Ser Glu Val Tyr Gly Pro Met Lys Asn Tyr  
 705 710 715 720  
 Leu Ser Lys Gln Val Arg Pro Leu Phe Glu His Phe Lys Asn Ile Thr  
 725 730 735  
 Asn Asp Trp Thr Arg Arg Pro Asp Thr Leu Met Asp Gln Tyr Asn Glu  
 740 745 750  
 Ile Asn Ala Ile Ser Thr Ala Cys Ser Asn Gly Ile Gln Glu Cys Glu  
 755 760 765  
 Thr Leu Val Ser Asp Leu Phe Lys Gln Trp Met Asp Asp Pro Ser Asn  
 770 775 780  
 Asn Pro Ile His Pro Asn Leu Arg Thr Thr Val Tyr Cys Asn Ala Ile  
 785 790 795 800  
 Ala Leu Gly Gly Glu Arg Glu Trp Asp Phe Ala Trp Glu Gln Phe Arg  
 805 810 815  
 Asn Ala Thr Leu Val Asn Glu Ala Asp Lys Leu Arg Ser Ala Leu Ala  
 820 825 830  
 Cys Ser Asn Glu Val Trp Ile Leu Asn Arg Tyr Leu Ser Tyr Thr Leu  
 835 840 845  
 Asn Pro Asp Tyr Ile Arg Arg Gln Asp Ala Thr Ser Thr Ile Asn Ser  
 850 855 860  
 Ile Ala Ser Asn Val Ile Gly Gln Thr Leu Val Trp Asp Phe Val Gln  
 865 870 875 880  
 Ser Asn Trp Lys Lys Leu Phe Glu Asp Phe Gly Gly Gly Ser Phe Ser  
 885 890 895  
 Phe Ala Asn Leu Ile Arg Ala Val Thr Arg Arg Phe Ser Thr Glu Tyr  
 900 905 910  
 Glu Leu Gln Gln Leu Glu Gln Phe Arg Leu Asn Asn Leu Asp Thr Gly  
 915 920 925  
 Phe Gly Ser Gly Thr Arg Ala Leu Glu Gln Ala Leu Glu Gln Thr Arg



930	935	940
Ala Asn Ile Lys Trp Val Gln Glu Asn Lys Glu Ala Val Leu Ala Trp		
945	950	955 960
Phe Thr Ala Asn Ser Ala		
	965	
<210> 73		
<211> 974		
<212> PRT		
<213> Mus musculus		
<400> 73		
Met Ala Lys Gly Phe Tyr Ile Ser Lys Thr Leu Gly Ile Leu Gly Ile		
1	5	10 15
Leu Leu Gly Val Ala Ala Val Cys Thr Ile Ile Ala Leu Ser Val Val		
	20	25 30
Tyr Ala Gln Glu Lys Asn Arg Asn Ala Glu Asn Ser Ala Thr Ala Pro		
	35	40 45
Thr Leu Pro Gly Ser Thr Ser Ala Thr Thr Ala Thr Thr Thr Ala Thr		
	50	55 60
Thr Thr Ala Thr Thr Thr Pro Ala Val Asp Glu Ser Lys Pro Trp Asn		
	65	70 75 80
Gln Tyr Arg Leu Pro Lys Thr Leu Ile Pro Asp Ser Tyr Arg Val Ile		
	85	90 95
Leu Arg Pro Tyr Leu Thr Pro Asn Asn Gln Gly Leu Tyr Ile Phe Gln		
	100	105 110
Gly Ser Ser Thr Val Arg Phe Thr Cys Asn Gln Thr Thr Asp Val Ile		
	115	120 125
Ile Ile His Ser Lys Lys Leu Asn Tyr Thr Leu Lys Gly Asn His Arg		
	130	135 140
Val Val Leu Arg Thr Leu Asp Gly Thr Pro Ala Pro Asn Ile Asp Lys		
	145	150 155 160
Thr Glu Leu Val Glu Arg Thr Glu Tyr Leu Val Val His Leu Gln Gly		
	165	170 175
Ser Leu Val Glu Gly Arg Gln Tyr Glu Met Asp Ser Glu Phe Gln Gly		
	180	185 190
Glu Leu Ala Asp Asp Leu Ala Gly Phe Tyr Arg Ser Glu Tyr Met Glu		
	195	200 205
Gly Gly Val Lys Lys Val Val Ala Thr Thr Gln Met Gln Ala Ala Asp		
	210	215 220
Ala Arg Lys Ser Phe Pro Cys Phe Asp Glu Pro Ala Met Lys Ala Met		
	225	230 235 240
Phe Asn Ile Thr Leu Ile Tyr Pro Asn Asn Leu Ile Ala Leu Ser Asn		
	245	250 255

Met Leu Pro Lys Glu Ser Lys Pro Tyr Pro Glu Asp Pro Ser Cys Thr  
 260 265 270  
 Met Thr Glu Phe His Ser Thr Pro Lys Met Ser Thr Tyr Leu Leu Ala  
 275 280 285  
 Tyr Ile Val Ser Glu Phe Lys Asn Ile Ser Ser Val Ser Ala Asn Gly  
 290 295 300  
 Val Gln Ile Gly Ile Trp Ala Arg Pro Ser Ala Ile Asp Glu Gly Gln  
 305 310 315 320  
 Gly Asp Tyr Ala Leu Asn Val Thr Gly Pro Ile Leu Asn Phe Phe Ala  
 325 330 335  
 Gln His Tyr Asn Thr Ser Tyr Pro Leu Pro Lys Ser Asp Gln Ile Ala  
 340 345 350  
 Leu Pro Asp Phe Asn Ala Gly Ala Met Glu Asn Trp Gly Leu Val Thr  
 355 360 365  
 Tyr Arg Glu Ser Ser Leu Val Phe Asp Ser Gln Ser Ser Ser Ile Ser  
 370 375 380  
 Asn Lys Glu Arg Val Val Thr Val Ile Ala His Glu Leu Ala His Gln  
 385 390 395 400  
 Trp Phe Gly Asn Leu Val Thr Val Ala Trp Trp Asn Asp Leu Trp Leu  
 405 410 415  
 Asn Glu Gly Phe Ala Ser Tyr Val Glu Tyr Leu Gly Ala Asp Tyr Ala  
 420 425 430  
 Glu Pro Thr Trp Asn Leu Lys Asp Leu Met Val Leu Asn Asp Val Tyr  
 435 440 445  
 Arg Val Met Ala Val Asp Ala Leu Ala Ser Ser His Pro Leu Ser Ser  
 450 455 460  
 Pro Ala Asp Glu Ile Lys Thr Pro Asp Gln Ile Met Glu Leu Phe Asp  
 465 470 475 480  
 Ser Ile Thr Tyr Ser Lys Gly Ala Ser Val Ile Arg Met Leu Ser Ser  
 485 490 495  
 Phe Leu Thr Glu Asp Leu Phe Lys Lys Gly Leu Ser Ser Tyr Leu His  
 500 505 510  
 Thr Tyr Gln Tyr Ser Asn Thr Val Tyr Leu Asp Leu Trp Glu His Leu  
 515 520 525  
 Gln Lys Ala Val Asn Gln Gln Thr Ala Val Gln Leu Pro Ala Thr Val  
 530 535 540  
 Arg Thr Ile Met Asp Arg Trp Ile Leu Gln Met Gly Phe Pro Val Ile  
 545 550 555 560  
 Thr Val Asn Thr Ser Thr Gly Glu Ile Ser Gln Lys His Phe Leu Leu  
 565 570 575  
 Asp Ser Lys Ser Asn Val Thr Arg Pro Ser Glu Phe Asn Tyr Ile Trp

580					585					590					
Ile	Ala	Pro	Ile	Pro	Phe	Leu	Lys	Ser	Gly	Gln	Glu	Asp	His	Tyr	Trp
	595						600					605			
Leu	Asp	Val	Glu	Lys	Asn	Gln	Ser	Ala	Lys	Phe	Gln	Thr	Ser	Ser	Asn
	610					615					620				
Glu	Trp	Ile	Leu	Leu	Asn	Ile	Asn	Val	Thr	Gly	Tyr	Tyr	Leu	Val	Asn
	625				630					635					640
Tyr	Asp	Glu	Asn	Asn	Trp	Lys	Lys	Leu	Gln	Asn	Gln	Leu	Gln	Thr	Asp
				645					650					655	
Leu	Ser	Val	Ile	Pro	Val	Ile	Asn	Arg	Ala	Gln	Ile	Ile	His	Asp	Ser
			660					665					670		
Phe	Asn	Leu	Ala	Ser	Ala	Lys	Met	Ile	Pro	Ile	Thr	Leu	Ala	Leu	Asp
	675						680					685			
Asn	Thr	Leu	Phe	Leu	Val	Lys	Glu	Thr	Glu	Tyr	Met	Pro	Trp	Gln	Ala
	690					695					700				
Ala	Leu	Ser	Ser	Leu	Asn	Tyr	Phe	Thr	Leu	Met	Phe	Asp	Arg	Ser	Glu
	705				710					715					720
Val	Tyr	Gly	Pro	Met	Lys	Arg	Tyr	Leu	Lys	Lys	Gln	Val	Met	Pro	Leu
				725					730					735	
Phe	Phe	Tyr	Phe	Gln	Asn	Arg	Thr	Asn	Asn	Trp	Val	Asn	Arg	Pro	Pro
			740					745					750		
Thr	Leu	Met	Glu	Gln	Tyr	Asn	Glu	Ile	Asn	Ala	Ile	Ser	Thr	Ala	Cys
	755						760					765			
Ser	Ser	Gly	Leu	Lys	Glu	Cys	Arg	Asp	Leu	Val	Val	Glu	Leu	Tyr	Ser
	770					775					780				
Gln	Trp	Met	Lys	Asn	Pro	Asn	Asn	Asn	Thr	Ile	His	Pro	Asn	Leu	Arg
	785				790					795					800
Ser	Thr	Val	Tyr	Cys	Asn	Ala	Ile	Ala	Phe	Gly	Gly	Glu	Glu	Glu	Trp
				805				810						815	
Asn	Phe	Ala	Trp	Glu	Gln	Phe	Arg	Asn	Ala	Thr	Leu	Val	Asn	Glu	Ala
		820						825					830		
Asp	Lys	Leu	Arg	Ser	Ala	Leu	Ala	Cys	Ser	Lys	Asp	Val	Trp	Ile	Leu
	835						840					845			
Asn	Arg	Tyr	Leu	Ser	Tyr	Thr	Leu	Asn	Pro	Asp	Tyr	Ile	Arg	Lys	Gln
	850					855					860				
Asp	Thr	Thr	Ser	Thr	Ile	Ile	Ser	Ile	Ala	Ser	Asn	Val	Ala	Gly	His
	865				870					875					880
Pro	Leu	Val	Trp	Asp	Phe	Val	Arg	Ser	Asn	Trp	Lys	Lys	Leu	Phe	Glu
				885					890					895	
Asn	Tyr	Gly	Gly	Gly	Ser	Phe	Ser	Phe	Ala	Asn	Leu	Ile	Gln	Gly	Val
		900						905					910		

Thr Arg Arg Phe Ser Ser Glu Phe Glu Leu Gln Gln Leu Glu Gln Phe  
 915 920 925  
 Lys Ala Asp Asn Ser Ala Thr Gly Phe Gly Thr Gly Thr Arg Ala Leu  
 930 935 940  
 Glu Gln Ala Leu Glu Lys Thr Arg Ala Asn Ile Asp Trp Val Lys Glu  
 945 950 955 960  
 Asn Lys Asp Ala Val Phe Lys Trp Phe Thr Glu Asn Ser Gly  
 965 970

<210> 74  
 <211> 967  
 <212> PRT  
 <213> Homo sapiens

<400> 74  
 Met Ala Lys Gly Phe Tyr Ile Ser Lys Ser Leu Gly Ile Leu Gly Ile  
 1 5 10 15  
 Leu Leu Gly Val Ala Ala Val Cys Thr Ile Ile Ala Leu Ser Val Val  
 20 25 30  
 Tyr Ser Gln Glu Lys Asn Lys Asn Ala Asn Ser Ser Pro Val Ala Ser  
 35 40 45  
 Thr Thr Pro Ser Ala Ser Ala Thr Thr Asn Pro Ala Ser Ala Thr Thr  
 50 55 60  
 Leu Asp Gln Ser Lys Ala Trp Asn Arg Tyr Arg Leu Pro Asn Thr Leu  
 65 70 75 80  
 Lys Pro Asp Ser Tyr Gln Val Thr Leu Arg Pro Tyr Leu Thr Pro Asn  
 85 90 95  
 Asp Arg Gly Leu Tyr Val Phe Lys Gly Ser Ser Thr Val Arg Phe Thr  
 100 105 110  
 Cys Lys Glu Ala Thr Asp Val Ile Ile Ile His Ser Lys Lys Leu Asn  
 115 120 125  
 Tyr Thr Leu Ser Gln Gly His Arg Val Val Leu Arg Gly Val Gly Gly  
 130 135 140  
 Ser Gln Pro Pro Asp Ile Asp Lys Thr Glu Leu Val Glu Pro Thr Glu  
 145 150 155 160  
 Tyr Leu Val Val His Leu Lys Gly Ser Leu Val Lys Asp Ser Gln Tyr  
 165 170 175  
 Glu Met Asp Ser Glu Phe Glu Gly Glu Leu Ala Asp Asp Leu Ala Gly  
 180 185 190  
 Phe Tyr Arg Ser Glu Tyr Met Glu Gly Asn Val Arg Lys Val Val Ala  
 195 200 205  
 Thr Thr Gln Met Gln Ala Ala Asp Ala Arg Lys Ser Phe Pro Cys Phe  
 210 215 220  
 Asp Glu Pro Ala Met Lys Ala Glu Phe Asn Ile Thr Leu Ile His Pro

225		230		235		240
Lys Asp Leu Thr	Ala Leu Ser Asn Met	Leu Pro Lys Gly	Pro Ser Thr			
	245	250	255			
Pro Leu Pro Glu Asp	Pro Asn Trp Asn Val	Thr Glu Phe His	Thr Thr			
	260	265	270			
Pro Lys Met Ser Thr Tyr	Leu Leu Ala Phe Ile	Val Ser Glu Phe	Asp			
	275	280	285			
Tyr Val Glu Lys Gln Ala	Ser Asn Gly Val Leu	Ile Arg Ile Trp	Ala			
	290	295	300			
Arg Pro Ser Ala Ile	Ala Ala Gly His Gly	Asp Tyr Ala Leu	Asn Val			
305	310	315	320			
Thr Gly Pro Ile Leu	Asn Phe Phe Ala Gly	His Tyr Asp Thr	Pro Tyr			
	325	330	335			
Pro Leu Pro Lys Ser	Asp Gln Ile Gly Leu	Pro Asp Phe Asn	Ala Gly			
	340	345	350			
Ala Met Glu Asn Trp Gly	Leu Val Thr Tyr Arg	Glu Asn Ser Leu	Leu			
	355	360	365			
Phe Asp Pro Leu Ser	Ser Ser Ser Ser	Asn Lys Glu Arg	Val Val Thr			
	370	375	380			
Val Ile Ala His Glu	Leu Ala His Gln Trp	Phe Gly Asn Leu	Val Thr			
385	390	395	400			
Ile Glu Trp Trp Asn	Asp Leu Trp Leu Asn	Glu Gly Phe Ala	Ser Tyr			
	405	410	415			
Val Glu Tyr Leu Gly	Ala Asp Tyr Ala Glu	Pro Thr Trp Asn	Leu Lys			
	420	425	430			
Asp Leu Met Val Leu	Asn Asp Val Tyr Arg	Val Met Ala Val	Asp Ala			
	435	440	445			
Leu Ala Ser Ser His	Pro Leu Ser Thr Pro	Ala Ser Glu Ile	Asn Thr			
	450	455	460			
Pro Ala Gln Ile Ser	Glu Leu Phe Asp Ala	Ile Ser Tyr Ser	Lys Gly			
465	470	475	480			
Ala Ser Val Leu Arg	Met Leu Ser Ser Phe	Leu Ser Glu Asp	Val Phe			
	485	490	495			
Lys Gln Gly Leu Ala	Ser Tyr Leu His Thr	Phe Ala Tyr Gln	Asn Thr			
	500	505	510			
Ile Tyr Leu Asn Leu	Trp Asp His Leu Gln	Glu Ala Val Asn	Asn Arg			
	515	520	525			
Ser Ile Gln Leu Pro	Thr Thr Val Arg Asp	Ile Met Asn Arg	Trp Thr			
	530	535	540			
Leu Gln Met Gly Phe	Pro Val Ile Thr Val	Asp Thr Ser Thr	Gly Thr			
545	550	555	560			

Leu Ser Gln Glu His Phe Leu Leu Asp Pro Asp Ser Asn Val Thr Arg  
 565 570 575  
 Pro Ser Glu Phe Asn Tyr Val Trp Ile Val Pro Ile Thr Ser Ile Arg  
 580 585 590  
 Asp Gly Arg Gln Gln Gln Asp Tyr Trp Leu Ile Asp Val Arg Ala Gln  
 595 600 605  
 Asn Asp Leu Phe Ser Thr Ser Gly Asn Glu Trp Val Leu Leu Asn Leu  
 610 615 620  
 Asn Val Thr Gly Tyr Tyr Arg Val Asn Tyr Asp Glu Glu Asn Trp Arg  
 625 630 635 640  
 Lys Ile Gln Thr Gln Leu Gln Arg Asp His Ser Ala Ile Pro Val Ile  
 645 650 655  
 Asn Arg Ala Gln Ile Ile Asn Asp Ala Phe Asn Leu Ala Ser Ala His  
 660 665 670  
 Lys Val Pro Val Thr Leu Ala Leu Asn Asn Thr Leu Phe Leu Ile Glu  
 675 680 685  
 Glu Arg Gln Tyr Met Pro Trp Glu Ala Ala Leu Ser Ser Leu Ser Tyr  
 690 695 700  
 Phe Lys Leu Met Phe Asp Arg Ser Glu Val Tyr Gly Pro Met Lys Asn  
 705 710 715 720  
 Tyr Leu Lys Lys Gln Val Thr Pro Leu Phe Ile His Phe Arg Asn Asn  
 725 730 735  
 Thr Asn Asn Trp Arg Glu Ile Pro Glu Asn Leu Met Asp Gln Tyr Ser  
 740 745 750  
 Glu Val Asn Ala Ile Ser Thr Ala Cys Ser Asn Gly Val Pro Glu Cys  
 755 760 765  
 Glu Glu Met Val Ser Gly Leu Phe Lys Gln Trp Met Glu Asn Pro Asn  
 770 775 780  
 Asn Asn Pro Ile His Pro Asn Leu Arg Ser Thr Val Tyr Cys Asn Ala  
 785 790 795 800  
 Ile Ala Gln Gly Gly Glu Glu Glu Trp Asp Phe Ala Trp Glu Gln Phe  
 805 810 815  
 Arg Asn Ala Thr Leu Val Asn Glu Ala Asp Lys Leu Arg Ala Ala Leu  
 820 825 830  
 Ala Cys Ser Lys Glu Leu Trp Ile Leu Asn Arg Tyr Leu Ser Tyr Thr  
 835 840 845  
 Leu Asn Pro Asp Leu Ile Arg Lys Gln Asp Ala Thr Ser Thr Ile Ile  
 850 855 860  
 Ser Ile Thr Asn Asn Val Ile Gly Gln Gly Leu Val Trp Asp Phe Val  
 865 870 875 880  
 Gln Ser Asn Trp Lys Lys Leu Phe Asn Asp Tyr Gly Gly Gly Ser Phe  
 885 890 895

Ser Phe Ser Asn Leu Ile Gln Ala Val Thr Arg Arg Phe Ser Thr Glu  
900 905 910

Tyr Glu Leu Gln Gln Leu Glu Gln Phe Lys Lys Asp Asn Glu Glu Thr  
915 920 925

Gly Phe Gly Ser Gly Thr Arg Ala Leu Glu Gln Ala Leu Glu Lys Thr  
930 935 940

Lys Ala Asn Ile Lys Trp Val Lys Glu Asn Lys Glu Val Val Leu Gln  
945 950 955 960

Trp Phe Thr Glu Asn Ser Lys  
965

<210> 75  
<211> 967  
<212> PRT  
<213> Homo sapiens

<400> 75  
Met Ala Lys Gly Phe Tyr Ile Ser Lys Ser Leu Gly Ile Leu Gly Ile  
1 5 10 15

Leu Leu Gly Val Ala Ala Val Cys Thr Ile Ile Ala Leu Ser Val Val  
20 25 30

Tyr Ser Gln Glu Lys Asn Lys Asn Ala Asn Ser Ser Pro Val Ala Ser  
35 40 45

Thr Thr Pro Ser Ala Ser Ala Thr Thr Asn Pro Ala Ser Ala Thr Thr  
50 55 60

Leu Asp Gln Ser Lys Ala Trp Asn Arg Tyr Arg Leu Pro Asn Thr Leu  
65 70 75 80

Lys Pro Asp Ser Tyr Gln Val Thr Leu Arg Pro Tyr Leu Thr Pro Asn  
85 90 95

Asp Arg Gly Leu Tyr Val Phe Lys Gly Ser Ser Thr Val Arg Phe Thr  
100 105 110

Cys Lys Glu Ala Thr Asp Val Ile Ile Ile His Ser Lys Lys Leu Asn  
115 120 125

Tyr Thr Leu Ser Gln Gly His Arg Val Val Leu Arg Gly Val Gly Gly  
130 135 140

Ser Gln Pro Pro Asp Ile Asp Lys Thr Glu Leu Val Glu Pro Thr Glu  
145 150 155 160

Tyr Leu Val Val His Leu Lys Gly Ser Leu Val Lys Asp Ser Gln Tyr  
165 170 175

Glu Met Asp Ser Glu Phe Glu Gly Glu Leu Ala Asp Asp Leu Ala Gly  
180 185 190

Phe Tyr Arg Ser Glu Tyr Met Glu Gly Asn Val Arg Lys Val Val Ala  
195 200 205

Thr Thr Gln Met Gln Ala Ala Asp Ala Arg Lys Ser Phe Pro Cys Phe  
 210 215 220  
 Asp Glu Pro Ala Met Lys Ala Glu Phe Asn Ile Thr Leu Ile His Pro  
 225 230 235 240  
 Lys Asp Leu Thr Ala Leu Ser Asn Met Leu Pro Lys Gly Pro Ser Thr  
 245 250 255  
 Pro Leu Pro Glu Asp Pro Asn Trp Asn Val Thr Glu Phe His Thr Thr  
 260 265 270  
 Pro Lys Met Ser Thr Tyr Leu Leu Ala Phe Ile Val Ser Glu Phe Asp  
 275 280 285  
 Tyr Val Glu Lys Gln Ala Ser Asn Gly Val Leu Ile Arg Ile Trp Ala  
 290 295 300  
 Arg Pro Ser Ala Ile Ala Ala Gly His Gly Asp Tyr Ala Leu Asn Val  
 305 310 315 320  
 Thr Gly Pro Ile Leu Asn Phe Phe Ala Gly His Tyr Asp Thr Pro Tyr  
 325 330 335  
 Pro Leu Pro Lys Ser Asp Gln Ile Gly Leu Pro Asp Phe Asn Ala Gly  
 340 345 350  
 Ala Met Glu Asn Trp Gly Leu Val Thr Tyr Arg Glu Asn Ser Leu Leu  
 355 360 365  
 Phe Asp Pro Leu Ser Ser Ser Ser Ser Asn Lys Glu Arg Val Val Thr  
 370 375 380  
 Val Ile Ala His Glu Leu Ala His Gln Trp Phe Gly Asn Leu Val Thr  
 385 390 395 400  
 Ile Glu Trp Trp Asn Asp Leu Trp Leu Asn Glu Gly Phe Ala Ser Tyr  
 405 410 415  
 Val Glu Tyr Leu Gly Ala Asp Tyr Ala Glu Pro Thr Trp Asn Leu Lys  
 420 425 430  
 Asp Leu Met Val Leu Asn Asp Val Tyr Arg Val Met Ala Val Asp Ala  
 435 440 445  
 Leu Ala Ser Ser His Pro Leu Ser Thr Pro Ala Ser Glu Ile Asn Thr  
 450 455 460  
 Pro Ala Gln Ile Ser Glu Leu Phe Asp Ala Ile Ser Tyr Ser Lys Gly  
 465 470 475 480  
 Ala Ser Val Leu Arg Met Leu Ser Ser Phe Leu Ser Glu Asp Val Phe  
 485 490 495  
 Lys Gln Gly Leu Ala Ser Tyr Leu His Thr Phe Ala Tyr Gln Asn Thr  
 500 505 510  
 Ile Tyr Leu Asn Leu Trp Asp His Leu Gln Glu Ala Val Asn Asn Arg  
 515 520 525  
 Ser Ile Gln Leu Pro Thr Thr Glu Arg Asp Ile Met Asn Arg Trp Thr  
 530 535 540



Leu Gln Met Gly Phe Pro Val Ile Thr Val Asp Thr Ser Thr Gly Thr  
 545 550 555 560  
 Leu Ser Gln Glu His Phe Leu Leu Asp Pro Asp Ser Asn Val Thr Arg  
 565 570 575  
 Pro Ser Glu Phe Asn Tyr Val Trp Ile Val Pro Ile Thr Ser Ile Arg  
 580 585 590  
 Asp Gly Arg Gln Gln Gln Asp Tyr Trp Leu Met Asp Val Arg Ala Gln  
 595 600 605  
 Asn Asp Leu Phe Ser Thr Ser Gly Asn Glu Trp Val Leu Leu Asn Leu  
 610 615 620  
 Asn Val Thr Gly Tyr Tyr Arg Val Asn Tyr Asp Glu Glu Asn Trp Arg  
 625 630 635 640  
 Lys Ile Gln Thr Gln Leu Gln Arg Asp His Ser Ala Ile Pro Val Ile  
 645 650 655  
 Asn Arg Ala Gln Ile Ile Asn Asp Ala Phe Asn Leu Ala Ser Ala His  
 660 665 670  
 Lys Val Pro Val Thr Leu Ala Leu Asn Asn Thr Leu Phe Leu Ile Glu  
 675 680 685  
 Glu Arg Gln Tyr Met Pro Trp Glu Ala Ala Leu Ser Ser Leu Ser Tyr  
 690 695 700  
 Phe Lys Leu Met Phe Asp Arg Ser Glu Val Tyr Gly Pro Met Lys Asn  
 705 710 715 720  
 Tyr Leu Lys Lys Gln Val Thr Pro Leu Phe Ile His Phe Arg Asn Asn  
 725 730 735  
 Thr Asn Asn Trp Arg Glu Ile Pro Glu Asn Leu Met Asp Gln Tyr Ser  
 740 745 750  
 Glu Val Asn Ala Ile Ser Thr Ala Cys Ser Asn Gly Val Pro Glu Cys  
 755 760 765  
 Glu Glu Met Val Ser Gly Leu Phe Lys Gln Trp Met Glu Asn Pro Asn  
 770 775 780  
 Asn Asn Pro Ile His Pro Asn Leu Arg Ser Thr Val Tyr Cys Asn Ala  
 785 790 795 800  
 Ile Ala Gln Gly Gly Glu Glu Glu Trp Asp Phe Ala Trp Glu Gln Phe  
 805 810 815  
 Arg Asn Ala Thr Leu Val Asn Glu Ala Asp Lys Leu Arg Ala Ala Leu  
 820 825 830  
 Ala Cys Ser Lys Glu Leu Trp Ile Leu Asn Arg Tyr Leu Ser Tyr Thr  
 835 840 845  
 Leu Asn Pro Asp Leu Ile Arg Lys Gln Asp Ala Thr Ser Thr Ile Ile  
 850 855 860  
 Ser Ile Thr Asn Asn Val Ile Gly Gln Gly Leu Val Trp Asp Phe Val

865		870		875		880
Gln Ser Asn Trp	Lys Lys Pro Phe Asn Asp Tyr Gly Gly Gly Ser Phe					
	885			890		895
Ser Phe Ser	Asn Leu Ile Gln Ala Val Thr Arg Arg Phe Ser Thr Glu					
	900		905			910
Tyr Glu Leu Gln Gln Leu Glu Gln Phe Lys Lys Asp Asn Glu Glu Thr						
	915		920			925
Gly Phe Gly Ser Gly Thr Arg Ala Leu Glu Gln Ala Leu Glu Lys Thr						
	930		935			940
Lys Ala Asn Ile Lys Trp Val Lys Glu Asn Lys Glu Val Val Leu Gln						
	945		950		955	960
Trp Phe Thr Glu Asn Ser Lys						
	965					

<210> 76  
 <211> 74  
 <212> PRT  
 <213> Homo sapiens

<400> 76
Met Leu Gly Leu Val Leu Ala Leu Leu Ser Ser Ser Ser Ala Glu Glu
1 5 10 15
Tyr Val Gly Leu Ser Ala Asn Gln Cys Ala Val Pro Ala Lys Asp Arg
20 25 30
Val Asp Cys Gly Tyr Pro His Val Thr Pro Lys Glu Cys Asn Asn Arg
35 40 45
Gly Cys Cys Phe Asp Ser Arg Ile Pro Gly Val Pro Trp Cys Phe Lys
50 55 60
Pro Leu Thr Arg Lys Thr Glu Cys Thr Phe
65 70

<210> 77  
 <211> 61  
 <212> PRT  
 <213> Homo sapiens

<400> 77
Ala Glu Glu Tyr Val Gly Leu Ser Ala Asn Gln Cys Ala Val Pro Ala
1 5 10 15
Lys Asp Arg Val Asp Cys Gly Tyr Pro His Val Thr Pro Lys Glu Cys
20 25 30
Asn Asn Arg Gly Cys Cys Phe Asp Ser Arg Ile Pro Gly Val Pro Trp
35 40 45
Cys Phe Lys Pro Leu Thr Arg Lys Thr Glu Cys Thr Phe
50 55 60

<210> 78  
 <211> 73  
 <212> PRT  
 <213> Homo sapiens

<400> 78  
 Met Leu Gly Leu Val Leu Ala Leu Leu Ser Ser Ser Ser Ala Glu Glu  
     1                    5                    10                    15  
 Tyr Val Gly Leu Ser Ala Asn Gln Cys Ala Val Pro Ala Lys Asp Arg  
           20                    25                    30  
 Val Asp Cys Gly Tyr Pro His Val Thr Pro Lys Glu Cys Asn Asn Arg  
           35                    40                    45  
 Gly Cys Cys Phe Asp Ser Arg Ile Pro Gly Val Pro Trp Cys Phe Lys  
           50                    55                    60  
 Pro Leu Gln Glu Ala Glu Cys Thr Phe  
           65                    70

<210> 79  
 <211> 80  
 <212> PRT  
 <213> Homo sapiens

<400> 79  
 Met Ala Ala Arg Ala Leu Cys Met Leu Gly Leu Val Leu Ala Leu Leu  
     1                    5                    10                    15  
 Ser Ser Ser Ser Ala Glu Glu Tyr Val Gly Leu Ser Ala Asn Gln Cys  
           20                    25                    30  
 Ala Val Pro Ala Lys Asp Arg Val Asp Cys Gly Tyr Pro His Val Thr  
           35                    40                    45  
 Pro Lys Glu Cys Asn Asn Arg Gly Cys Cys Phe Asp Ser Arg Ile Pro  
           50                    55                    60  
 Gly Val Pro Trp Cys Phe Lys Pro Leu Gln Glu Ala Glu Cys Thr Phe  
           65                    70                    75                    80

<210> 80  
 <211> 59  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> VARIANT  
 <222> (1)  
 <223> Where Xaa is any amino acid as defined in the  
         specification

<400> 80  
 Xaa Glu Tyr Val Gly Leu Ser Ala Asn Gln Cys Ala Val Pro Ala Lys  
     1                    5                    10                    15

Asp Arg Val Asp Cys Gly Tyr Pro His Val Thr Pro Lys Glu Cys Asn  
                   20                                  25                                  30

Asn Arg Gly Cys Cys Phe Asp Ser Arg Ile Pro Gly Val Pro Trp Cys  
                   35                                  40                                  45

Phe Lys Pro Leu Gln Glu Ala Glu Cys Thr Phe  
           50                                  55

<210> 81  
 <211> 313  
 <212> PRT  
 <213> Homo sapiens

<400> 81  
 Met Glu Thr Gly Pro Glu Asp Pro Ser Ser Met Pro Glu Glu Ser Ser  
   1                                  5                                  10                                  15

Pro Arg Arg Thr Pro Gln Ser Ile Pro Tyr Gln Asp Leu Pro His Leu  
                   20                                  25                                  30

Val Asn Ala Asp Gly Gln Tyr Leu Phe Cys Arg Tyr Trp Lys Pro Thr  
                   35                                  40                                  45

Gly Thr Pro Lys Ala Leu Ile Phe Val Ser His Gly Ala Gly Glu His  
           50                                  55                                  60

Ser Gly Arg Tyr Glu Glu Leu Ala Arg Met Leu Met Gly Leu Asp Leu  
   65                                  70                                  75                                  80

Leu Val Phe Ala His Asp His Val Gly His Gly Gln Ser Glu Gly Glu  
                   85                                  90                                  95

Arg Met Val Val Ser Asp Phe His Val Phe Val Arg Asp Val Leu Gln  
                   100                                  105                                  110

His Val Asp Ser Met Gln Lys Asp Tyr Pro Gly Leu Pro Val Phe Leu  
           115                                  120                                  125

Leu Gly His Ser Met Gly Gly Ala Ile Ala Ile Leu Thr Ala Ala Glu  
           130                                  135                                  140

Arg Pro Gly His Phe Ala Gly Met Val Leu Ile Ser Pro Leu Val Leu  
   145                                  150                                  155                                  160

Ala Asn Pro Glu Ser Ala Thr Thr Phe Lys Val Leu Ala Ala Lys Val  
                   165                                  170                                  175

Leu Asn Leu Val Leu Pro Asn Leu Ser Leu Gly Pro Ile Asp Ser Ser  
           180                                  185                                  190

Val Leu Ser Arg Asn Lys Thr Glu Val Asp Ile Tyr Asn Ser Asp Pro  
           195                                  200                                  205

Leu Ile Cys Arg Ala Gly Leu Lys Val Cys Phe Gly Ile Gln Leu Leu  
           210                                  215                                  220

Asn Ala Val Ser Arg Val Glu Arg Ala Leu Pro Lys Leu Thr Val Pro  
   225                                  230                                  235                                  240

Phe Leu Leu Leu Gln Gly Ser Ala Asp Arg Leu Cys Asp Ser Lys Gly



Pro Lys Leu Thr Val Pro Phe Leu Leu Leu Gln Gly Ser Ala Asp Arg  
 225 230 235 240

Leu Cys Asp Ser Lys Gly Ala Tyr Leu Leu Met Glu Leu Ala Lys Ser  
 245 250 255

Gln Asp Lys Thr Leu Lys Ile Tyr Glu Gly Ala Tyr His Val Leu His  
 260 265 270

Lys Glu Leu Pro Glu Val Thr Asn Ser Val Phe His Glu Ile Asn Met  
 275 280 285

Trp Val Ser Gln Arg Thr Ala Thr Ala Gly Thr Ala Ser Pro Pro  
 290 295 300

<210> 83  
 <211> 303  
 <212> PRT  
 <213> Mus musculus

<400> 83  
 Met Pro Glu Ala Ser Ser Pro Arg Arg Thr Pro Gln Asn Val Pro Tyr  
 1 5 10 15

Gln Asp Leu Pro His Leu Val Asn Ala Asp Gly Gln Tyr Leu Phe Cys  
 20 25 30

Arg Tyr Trp Lys Pro Ser Gly Thr Pro Lys Ala Leu Ile Phe Val Ser  
 35 40 45

His Gly Ala Gly Glu His Cys Gly Arg Tyr Asp Glu Leu Ala His Met  
 50 55 60

Leu Lys Gly Leu Asp Met Leu Val Phe Ala His Asp His Val Gly His  
 65 70 75 80

Gly Gln Ser Glu Gly Glu Arg Met Val Val Ser Asp Phe Gln Val Phe  
 85 90 95

Val Arg Asp Val Leu Gln His Val Asp Thr Ile Gln Lys Asp Tyr Pro  
 100 105 110

Asp Val Pro Ile Phe Leu Leu Gly His Ser Met Gly Gly Ala Ile Ser  
 115 120 125

Ile Leu Val Ala Ala Glu Arg Pro Thr Tyr Phe Ser Gly Met Val Leu  
 130 135 140

Ile Ser Pro Leu Val Leu Ala Asn Pro Glu Ser Ala Ser Thr Leu Lys  
 145 150 155 160

Val Leu Ala Ala Lys Leu Leu Asn Phe Val Leu Pro Asn Met Thr Leu  
 165 170 175

Gly Arg Ile Asp Ser Ser Val Leu Ser Arg Asn Lys Ser Glu Val Asp  
 180 185 190

Leu Tyr Asn Ser Asp Pro Leu Val Cys Arg Ala Gly Leu Lys Val Cys  
 195 200 205

Phe Gly Ile Gln Leu Leu Asn Ala Val Ala Arg Val Glu Arg Ala Met  
 210 215 220  
 Pro Arg Leu Thr Leu Pro Phe Leu Leu Leu Gln Gly Ser Ala Asp Arg  
 225 230 235 240  
 Leu Cys Asp Ser Lys Gly Ala Tyr Leu Leu Met Glu Ser Ser Arg Ser  
 245 250 255  
 Gln Asp Lys Thr Leu Lys Met Tyr Glu Gly Ala Tyr His Val Leu His  
 260 265 270  
 Arg Glu Leu Pro Glu Val Thr Asn Ser Val Leu His Glu Val Asn Ser  
 275 280 285  
 Trp Val Ser His Arg Ile Ala Ala Ala Gly Ala Gly Cys Pro Pro  
 290 295 300  
  
 <210> 84  
 <211> 277  
 <212> PRT  
 <213> Ectromelia virus  
  
 <400> 84  
 Met Ser Ala Asn Cys Met Phe Asn Leu Asp Asn Asp Tyr Ile Tyr Cys  
 1 5 10 15  
 Lys Tyr Trp Lys Pro Ile Thr Tyr Pro Lys Ala Leu Val Phe Ile Ser  
 20 25 30  
 His Gly Ala Gly Glu His Ser Gly Arg Tyr Asp Glu Leu Ala Glu Asn  
 35 40 45  
 Ile Ser Ser Leu Gly Ile Leu Val Phe Ser His Asp His Ile Gly His  
 50 55 60  
 Gly Arg Ser Asn Gly Glu Lys Met Met Ile Asp Asp Phe Gly Thr Tyr  
 65 70 75 80  
 Val Arg Asp Val Val Gln His Val Val Thr Ile Lys Ser Thr Tyr Pro  
 85 90 95  
 Gly Val Pro Val Phe Leu Leu Gly His Ser Met Gly Ala Thr Ile Ser  
 100 105 110  
 Ile Leu Ala Ala Tyr Glu Asn Pro Asn Leu Phe Thr Ala Met Ile Leu  
 115 120 125  
 Met Ser Pro Leu Val Asn Ala Asp Ala Val Pro Arg Leu Asn Leu Leu  
 130 135 140  
 Ala Ala Lys Leu Met Gly Thr Ile Thr Pro Asn Val Ser Val Gly Lys  
 145 150 155 160  
 Leu Cys Pro Glu Ser Val Ser Arg Asp Lys Asp Glu Val Tyr Lys Tyr  
 165 170 175  
 Gln Tyr Asp Pro Leu Val Asn His Glu Lys Ile Lys Ala Gly Phe Ala  
 180 185 190  
 Ser Gln Val Leu Lys Ala Thr Asn Lys Val Arg Lys Ile Ile Pro Lys

195	200	205
Ile Asn Thr Pro Thr Leu Ile Leu Gln Gly Thr Asn Asn Glu Ile Ser		
210	215	220
Asp Val Ser Gly Ala Tyr Tyr Phe Met Gln His Ala Asn Cys Asn Arg		
225	230	235 240
Glu Ile Lys Ile Tyr Glu Gly Ala Lys His His Leu His Lys Glu Thr		
	245	250 255
Asp Glu Val Lys Lys Ser Val Met Lys Glu Ile Glu Thr Trp Ile Phe		
	260	265 270
Asn Arg Val Lys Leu		
275		

<210> 85  
 <211> 276  
 <212> PRT  
 <213> Monkeypox virus

<400> 85  
 Met Ser Ala Asn Cys Met Phe Asn Leu Asp Asn Asp Tyr Ile Tyr Cys  
 1 5 10 15

Lys Tyr Trp Lys Pro Ile Thr Tyr Pro Lys Ala Leu Val Phe Ile Ser  
 20 25 30

His Gly Ala Gly Glu His Ser Gly Arg Tyr Asp Glu Leu Ala Glu Asn  
 35 40 45

Ile Ser Ser Leu Gly Ile Leu Val Phe Ser His Asp His Ile Gly His  
 50 55 60

Gly Arg Ser Asn Gly Glu Lys Met Met Ile Asp Asp Phe Gly Lys Tyr  
 65 70 75 80

Val Arg Asp Val Val Gln His Val Val Thr Ile Lys Ser Thr Tyr Pro  
 85 90 95

Gly Val Pro Val Phe Leu Leu Gly His Ser Met Gly Ala Thr Ile Ser  
 100 105 110

Ile Leu Ala Ala Cys Asp Asn Pro Asn Leu Phe Thr Ala Met Ile Leu  
 115 120 125

Met Ser Pro Leu Val Asn Ala Asp Ala Val Pro Arg Leu Asn Leu Leu  
 130 135 140

Ala Ala Lys Leu Met Gly Thr Ile Thr Pro Asn Ala Ser Val Gly Lys  
 145 150 155 160

Leu Cys Pro Glu Ser Val Ser Arg Asp Met Asp Glu Val Tyr Lys Tyr  
 165 170 175

Gln Tyr Asp Pro Leu Val Asn His Glu Lys Ile Lys Ala Gly Phe Ala  
 180 185 190

Ser Gln Val Leu Lys Ala Thr Asn Lys Val Arg Lys Ile Ile Pro Lys  
 195 200 205



Ile Asp Thr Pro Thr Leu Ile Leu Gln Gly Thr Asn Asn Glu Ile Ser  
 210 215 220  
 Asp Val Ser Gly Ala Tyr Tyr Phe Met Gln His Ala Asn Cys Asn Arg  
 225 230 235 240  
 Glu Ile Lys Ile Tyr Glu Gly Ala Lys His His Leu His Lys Glu Thr  
 245 250 255  
 Asp Glu Val Lys Lys Ser Val Met Lys Glu Ile Glu Thr Trp Ile Phe  
 260 265 270  
 Asn Arg Val Lys  
 275

<210> 86  
 <211> 312  
 <212> PRT  
 <213> Homo sapiens

<400> 86  
 Met Arg Met Leu Leu Ala Leu Leu Ala Leu Ser Ala Ala Arg Pro Ser  
 1 5 10 15  
 Ala Ser Ala Glu Ser His Trp Cys Tyr Glu Val Gln Ala Glu Ser Ser  
 20 25 30  
 Asn Tyr Pro Cys Leu Val Pro Val Lys Trp Gly Gly Asn Cys Gln Lys  
 35 40 45  
 Asp Arg Gln Ser Pro Ile Asn Ile Val Thr Thr Lys Ala Lys Val Asp  
 50 55 60  
 Lys Lys Leu Gly Arg Phe Phe Phe Ser Gly Tyr Asp Lys Lys Gln Thr  
 65 70 75 80  
 Trp Thr Val Gln Asn Asn Gly His Ser Val Met Met Leu Leu Glu Asn  
 85 90 95  
 Lys Ala Ser Ile Ser Gly Gly Gly Leu Pro Ala Pro Tyr Gln Ala Lys  
 100 105 110  
 Gln Leu His Leu His Trp Ser Asp Leu Pro Tyr Lys Gly Ser Glu His  
 115 120 125  
 Ser Leu Asp Gly Glu His Phe Ala Met Glu Met His Ile Val His Glu  
 130 135 140  
 Lys Glu Lys Gly Thr Ser Arg Asn Val Lys Glu Ala Gln Asp Pro Glu  
 145 150 155 160  
 Asp Glu Ile Ala Val Leu Ala Phe Leu Val Glu Ala Gly Thr Gln Val  
 165 170 175  
 Asn Glu Gly Phe Gln Pro Leu Val Glu Ala Leu Ser Asn Ile Pro Lys  
 180 185 190  
 Pro Glu Met Ser Thr Thr Met Ala Glu Ser Ser Leu Leu Asp Leu Leu  
 195 200 205

Pro Lys Glu Glu Lys Leu Arg His Tyr Phe Arg Tyr Leu Gly Ser Leu  
 210 215 220  
 Thr Thr Pro Thr Cys Asp Glu Lys Val Val Trp Thr Val Phe Arg Glu  
 225 230 235 240  
 Pro Ile Gln Leu His Arg Glu Gln Ile Leu Ala Phe Ser Gln Lys Leu  
 245 250 255  
 Tyr Tyr Asp Lys Glu Gln Thr Val Ser Met Lys Asp Asn Val Arg Pro  
 260 265 270  
 Leu Gln Gln Leu Gly Gln Arg Thr Val Ile Lys Ser Gly Ala Pro Gly  
 275 280 285  
 Arg Pro Leu Pro Trp Ala Leu Pro Ala Leu Leu Gly Pro Met Leu Ala  
 290 295 300  
 Cys Leu Leu Ala Gly Phe Leu Arg  
 305 310  
  
 <210> 87  
 <211> 294  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 87  
 Met Arg Met Leu Leu Ala Leu Leu Ala Leu Ser Ala Ala Arg Pro Ser  
 1 5 10 15  
 Ala Ser Ala Val Pro Val Lys Trp Gly Gly Asn Cys Gln Lys Asp Arg  
 20 25 30  
 Gln Ser Pro Ile Asn Ile Val Thr Lys Ala Lys Val Asp Lys Lys  
 35 40 45  
 Leu Gly Arg Phe Phe Phe Ser Gly Tyr Asp Lys Lys Gln Thr Trp Thr  
 50 55 60  
 Val Gln Asn Asn Gly His Ser Val Met Met Leu Leu Glu Asn Lys Ala  
 65 70 75 80  
 Ser Ile Ser Gly Gly Gly Leu Pro Ala Pro Tyr Gln Ala Lys Gln Leu  
 85 90 95  
 His Leu His Trp Ser Asp Leu Pro Tyr Lys Gly Ser Glu His Ser Leu  
 100 105 110  
 Asp Gly Glu His Phe Ala Met Glu Met His Ile Val His Glu Lys Glu  
 115 120 125  
 Lys Gly Thr Ser Arg Asn Val Lys Glu Ala Gln Asp Pro Glu Asp Glu  
 130 135 140  
 Ile Ala Val Leu Ala Phe Leu Val Glu Ala Gly Thr Gln Val Asn Glu  
 145 150 155 160  
 Gly Phe Gln Pro Leu Val Glu Ala Leu Ser Asn Ile Pro Lys Pro Glu  
 165 170 175  
 Met Ser Thr Thr Met Ala Glu Ser Ser Leu Leu Asp Leu Leu Pro Lys



Met Ser Thr Thr Met Ala Glu Ser Ser Leu Leu Asp Leu Leu Pro Lys  
180 185 190

Glu Glu Lys Leu Arg His Tyr Phe Arg Tyr Leu Gly Ser Leu Thr Thr  
195 200 205

Pro Thr Cys Asp Glu Lys Val Val Trp Thr Val Phe Arg Glu Pro Ile  
210 215 220

Gln Leu His Arg Glu Gln Ile Leu Ala Phe Ser Gln Lys Leu Tyr Tyr  
225 230 235 240

Asp Lys Glu Gln Thr Val Ser Met Lys Asp Asn Val Arg Pro Leu Gln  
245 250 255

Gln Leu Gly Gln Arg Thr Val Ile Lys Ser  
260 265

<210> 89

<211> 262

<212> PRT

<213> Homo sapiens

<400> 89

Ala Glu Ser His Trp Cys Tyr Glu Val Gln Ala Glu Ser Ser Asn Tyr  
1 5 10 15

Pro Cys Leu Val Pro Val Lys Trp Gly Gly Asn Cys Gln Lys Asp Arg  
20 25 30

Gln Ser Pro Ile Asn Ile Val Thr Thr Lys Ala Lys Val Asp Lys Lys  
35 40 45

Leu Gly Arg Phe Phe Phe Ser Gly Tyr Asp Lys Lys Gln Thr Trp Thr  
50 55 60

Val Gln Asn Asn Gly His Ser Val Met Met Leu Leu Glu Asn Lys Ala  
65 70 75 80

Ser Ile Ser Gly Gly Gly Leu Pro Ala Pro Tyr Gln Ala Lys Gln Leu  
85 90 95

His Leu His Trp Ser Asp Leu Pro Tyr Lys Gly Ser Glu His Ser Leu  
100 105 110

Asp Gly Glu His Phe Ala Met Glu Met His Ile Val His Glu Lys Glu  
115 120 125

Lys Gly Thr Ser Arg Asn Val Lys Glu Ala Gln Asp Pro Glu Asp Glu  
130 135 140

Ile Ala Val Leu Ala Phe Leu Val Glu Ala Gly Thr Gln Val Asn Glu  
145 150 155 160

Gly Phe Gln Pro Leu Val Glu Ala Leu Ser Asn Ile Pro Lys Pro Glu  
165 170 175

Met Ser Thr Thr Ser Ser Leu Leu Asp Leu Leu Pro Lys Glu Glu Lys  
180 185 190

Leu Arg His Tyr Phe Arg Tyr Leu Gly Ser Leu Thr Thr Pro Thr Cys  
           195                          200                          205  
 Asp Glu Lys Val Val Trp Thr Val Phe Arg Glu Pro Ile Gln Leu His  
           210                          215                          220  
 Arg Glu Gln Ile Leu Ala Phe Ser Gln Lys Leu Tyr Tyr Asp Lys Glu  
           225                          230                          235                          240  
 Gln Thr Val Ser Met Lys Asp Asn Val Arg Pro Leu Gln Gln Leu Gly  
                           245                          250                          255  
 Gln Arg Thr Val Ile Lys  
                           260

<210> 90  
 <211> 335  
 <212> PRT  
 <213> Homo sapiens  
  
 <220>  
 <221> VARIANT  
 <222> (8)  
 <223> Where Xaa is any amino acid as defined in the  
           specification  
  
 <230>  
 <231> VARIANT  
 <232> (235)  
 <233> Where Xaa is any amino acid as defined in the  
           specification

<400> 90  
 Met Arg Met Leu Leu Ala Leu Xaa Ala Leu Ser Pro Ala Arg Pro Ser  
   1                          5                          10                          15  
 Ala Ser Ala Glu Ser His Trp Cys Tyr Glu Val Gln Ala Glu Ser Ser  
           20                          25                          30  
 Asn Tyr Pro Cys Leu Val Pro Val Lys Trp Gly Gly Asn Cys Gln Lys  
           35                          40                          45  
 Asp Arg Gln Ser Pro Ile Asn Ile Val Thr Thr Lys Ala Lys Val Asp  
           50                          55                          60  
 Lys Lys Leu Gly Arg Phe Phe Phe Ser Gly Tyr Asp Lys Lys Gln Thr  
           65                          70                          75                          80  
 Trp Thr Val Gln Asn Asn Gly His Ser Val Met Met Leu Leu Glu Asn  
                           85                          90                          95  
 Lys Ala Ser Ile Ser Gly Gly Gly Leu Pro Ala Pro Tyr Gln Ala Lys  
           100                          105                          110  
 Gln Leu His Leu His Trp Ser Asp Leu Pro Tyr Lys Gly Ser Glu His  
           115                          120                          125  
 Ser Leu Asp Gly Glu His Phe Ala Met Glu Met His Ile Val His Glu  
           130                          135                          140  
 Lys Glu Lys Gly Thr Ser Arg Asn Val Lys Glu Ala Gln Asp Pro Glu

145		150		155		160
Asp Glu Ile Ala Val	Leu Ala Phe Leu Val	Glu Ala Gly Thr Gln Val				
	165		170			175
Asn Glu Gly Phe Gln Pro	Leu Val Glu Ala Leu Ser Asn Ile Pro Lys					
	180		185			190
Pro Glu Met Ser Thr Thr Met	Ala Glu Ser Ser Leu Leu Asp Leu Leu					
	195		200			205
Pro Lys Glu Glu Lys Leu Arg His Tyr Phe Arg Tyr Leu Gly Ser Leu						
	210		215			220
Thr Thr Pro Thr Cys Asp Glu Lys Val Val Xaa Asp Cys Val Pro Gly						
	225		230			235
Ala His Ser Ala Ser Gln Arg Thr Asp Pro Gly Ile Leu Ser Glu Ala						
	245		250			255
Val Leu Arg Gln Gly Thr Asp Ser Glu His Glu Gly Gln Cys Gln Ala						
	260		265			270
Pro Ala Ala Ala Gly Ala Ala His Gly Asp Lys Val Arg Gly Pro Gly						
	275		280			285
Ser Ala Ala Ala Leu Gly Pro Ala Cys Pro Ala Gly Pro Pro Cys Trp						
	290		295			300
Pro Ala Cys Trp Pro Ala Ser Cys Asn Asp Ala Ser Leu Leu His Ala						
	305		310			315
Pro Ser Leu Leu Pro Gln Leu Ser Lys Phe Gln Ala Ser Gly Pro						
	325		330			335

<210> 91  
 <211> 581  
 <212> PRT  
 <213> Homo sapiens

<400> 91  
 Met Gln Arg Pro Gly Pro Arg Leu Trp Leu Val Leu Gln Val Met Gly  
 1 5 10 15  
 Ser Cys Ala Ala Ile Ser Ser Met Asp Met Glu Arg Pro Gly Asp Gly  
 20 25 30  
 Lys Cys Gln Pro Ile Glu Ile Pro Met Cys Lys Asp Ile Gly Tyr Asn  
 35 40 45  
 Met Thr Arg Met Pro Asn Leu Met Gly His Glu Asn Gln Arg Glu Ala  
 50 55 60  
 Ala Ile Gln Leu His Glu Phe Ala Pro Leu Val Glu Tyr Gly Cys His  
 65 70 75 80  
 Gly His Leu Arg Phe Phe Leu Cys Ser Leu Tyr Ala Pro Met Cys Thr  
 85 90 95  
 Glu Gln Val Ser Thr Pro Ile Pro Ala Cys Arg Val Met Cys Glu Gln  
 100 105 110

Ala Arg Leu Lys Cys Ser Pro Ile Met Glu Gln Phe Asn Phe Lys Trp  
 115 120 125  
 Pro Asp Ser Leu Asp Cys Arg Lys Leu Pro Asn Lys Asn Asp Pro Asn  
 130 135 140  
 Tyr Leu Cys Met Glu Ala Pro Asn Asn Gly Ser Asp Glu Pro Thr Arg  
 145 150 155 160  
 Gly Ser Gly Leu Phe Pro Pro Leu Phe Arg Pro Gln Arg Pro His Ser  
 165 170 175  
 Ala Gln Glu His Pro Leu Lys Asp Gly Gly Pro Gly Arg Gly Gly Cys  
 180 185 190  
 Asp Asn Pro Gly Lys Phe His His Val Glu Lys Ser Ala Ser Cys Ala  
 195 200 205  
 Pro Leu Cys Thr Pro Gly Val Asp Val Tyr Trp Ser Arg Glu Asp Lys  
 210 215 220  
 Arg Phe Ala Val Val Trp Leu Ala Ile Trp Ala Val Leu Cys Phe Phe  
 225 230 235 240  
 Ser Ser Ala Phe Thr Val Leu Thr Phe Leu Ile Asp Pro Ala Arg Phe  
 245 250 255  
 Arg Tyr Pro Glu Arg Pro Ile Ile Phe Leu Ser Met Cys Tyr Cys Val  
 260 265 270  
 Tyr Ser Val Gly Tyr Leu Ile Arg Leu Phe Ala Gly Ala Glu Ser Ile  
 275 280 285  
 Ala Cys Asp Arg Asp Ser Gly Gln Leu Tyr Val Ile Gln Glu Gly Leu  
 290 295 300  
 Glu Ser Thr Gly Cys Thr Leu Val Phe Leu Val Leu Tyr Tyr Phe Gly  
 305 310 315 320  
 Met Ala Ser Ser Leu Trp Trp Val Val Leu Thr Leu Thr Trp Phe Leu  
 325 330 335  
 Ala Ala Gly Lys Lys Trp Gly His Glu Ala Ile Glu Ala Asn Ser Ser  
 340 345 350  
 Tyr Phe His Leu Ala Ala Trp Ala Ile Pro Ala Val Lys Thr Ile Leu  
 355 360 365  
 Ile Leu Val Met Arg Arg Val Ala Gly Asp Glu Leu Thr Gly Val Cys  
 370 375 380  
 Tyr Val Gly Ser Met Asp Val Asn Ala Leu Thr Gly Phe Val Leu Ile  
 385 390 395 400  
 Pro Leu Ala Cys Tyr Leu Val Ile Gly Thr Ser Phe Ile Leu Ser Gly  
 405 410 415  
 Phe Val Ala Leu Phe His Ile Arg Arg Val Met Lys Thr Gly Gly Glu  
 420 425 430  
 Asn Thr Asp Lys Leu Glu Lys Leu Met Val Arg Ile Gly Leu Phe Ser

435					440					445					
Val	Leu	Tyr	Thr	Val	Pro	Ala	Thr	Cys	Val	Ile	Ala	Cys	Tyr	Phe	Tyr
450						455					460				
Glu	Arg	Leu	Asn	Met	Asp	Tyr	Trp	Lys	Ile	Leu	Ala	Ala	Gln	His	Lys
465					470					475					480
Cys	Lys	Met	Asn	Asn	Gln	Thr	Lys	Thr	Leu	Asp	Cys	Leu	Met	Ala	Ala
			485						490					495	
Ser	Ile	Pro	Ala	Val	Glu	Ile	Phe	Met	Val	Lys	Ile	Phe	Met	Leu	Leu
		500						505					510		
Val	Val	Gly	Ile	Thr	Ser	Gly	Met	Trp	Ile	Trp	Thr	Ser	Lys	Thr	Leu
	515					520						525			
Gln	Ser	Trp	Gln	Gln	Val	Cys	Ser	Arg	Arg	Leu	Lys	Lys	Lys	Ser	Arg
530					535					540					
Arg	Lys	Pro	Ala	Ser	Val	Ile	Thr	Ser	Gly	Gly	Ile	Tyr	Lys	Lys	Ala
545					550					555					560
Gln	His	Pro	Gln	Lys	Thr	His	His	Gly	Lys	Tyr	Glu	Ile	Pro	Ala	Gln
			565					570						575	
Ser	Pro	Thr	Cys	Val											
			580												

<210> 92  
 <211> 585  
 <212> PRT  
 <213> Gallus gallus

<400> 92  
 Met Gly Pro Ala Ala Gly Asn Leu Val Arg Ala Val Leu Ala Leu Cys  
 1 5 10 15  
 Trp Leu Ala Glu His Cys Ala Gly Ile Ser Ser Ile Asp Ile Glu Arg  
 20 25 30  
 Pro Gly Asp Gly Arg Cys Gln Pro Ile Glu Ile Pro Met Cys Lys Asp  
 35 40 45  
 Ile Gly Tyr Asn Met Thr Arg Met Pro Asn Leu Met Gly His Glu Asn  
 50 55 60  
 Gln Arg Glu Ala Ala Ile Gln Leu His Glu Phe Ala Pro Leu Val Glu  
 65 70 75 80  
 Tyr Gly Cys His Gly His Leu Lys Phe Phe Leu Cys Ser Leu Tyr Ala  
 85 90 95  
 Pro Met Cys Thr Glu Gln Val Ser Thr Pro Ile Pro Ala Cys Arg Val  
 100 105 110  
 Met Cys Glu Gln Ala Arg Leu Lys Cys Ser Pro Ile Met Glu Gln Phe  
 115 120 125  
 Asn Phe Lys Trp Pro Asp Ser Leu Asp Cys Ser Lys Leu Pro Asn Lys  
 130 135 140



Asn Asp Pro Asn Tyr Leu Cys Met Glu Ala Pro Asn Asn Gly Ser Asp  
 145 150 155 160  
 Glu Pro Pro Arg Gly Ser Ser Met Leu Pro Pro Met Phe Arg Pro Gln  
 165 170 175  
 Arg Pro Ser Thr Gly His Asp Leu Gln Gln His Lys Asp Ser Leu Ser  
 180 185 190  
 Arg Thr Ser Cys Glu Asn Pro Gly Lys Phe His His Val Glu Lys Ser  
 195 200 205  
 Ala Ser Cys Ala Pro Leu Cys Thr Pro Gly Val Asp Val Tyr Trp Ser  
 210 215 220  
 Lys Asp Asp Lys Gln Phe Ala Val Ile Trp Ile Ala Ile Trp Ser Ile  
 225 230 235 240  
 Leu Cys Phe Phe Ser Ser Ala Phe Thr Val Leu Thr Phe Leu Ile Asp  
 245 250 255  
 Pro Gln Arg Phe Lys Tyr Pro Glu Arg Pro Ile Ile Phe Leu Ser Met  
 260 265 270  
 Cys Tyr Cys Val Tyr Ser Val Gly Tyr Ile Ile Arg Leu Phe Ser Gly  
 275 280 285  
 Ala Glu Ser Ile Ala Cys Asp Arg Asp Ser Gly Gln Leu Tyr Val Ile  
 290 295 300  
 Gln Glu Gly Leu Glu Ser Thr Gly Cys Thr Ile Val Phe Leu Val Leu  
 305 310 315 320  
 Tyr Tyr Phe Gly Met Ala Ser Ser Leu Trp Trp Val Ile Leu Thr Leu  
 325 330 335  
 Thr Trp Phe Leu Ala Ala Gly Lys Lys Trp Gly His Glu Ala Ile Glu  
 340 345 350  
 Ala Asn Ser Ser Tyr Phe His Leu Ala Ala Trp Ala Ile Pro Ala Val  
 355 360 365  
 Lys Thr Ile Met Ile Leu Val Met Arg Arg Val Ala Gly Asp Glu Leu  
 370 375 380  
 Thr Gly Leu Cys Tyr Val Gly Ser Met Asp Val Asn Ala Leu Thr Gly  
 385 390 395 400  
 Phe Val Leu Ile Pro Leu Ala Cys Tyr Leu Ile Ile Gly Thr Ser Phe  
 405 410 415  
 Ile Leu Ser Gly Phe Val Ala Leu Phe His Ile Arg Arg Val Met Lys  
 420 425 430  
 Thr Gly Gly Glu Asn Thr Asp Lys Leu Glu Lys Leu Met Val Arg Ile  
 435 440 445  
 Gly Val Phe Ser Val Leu Tyr Thr Val Pro Ala Thr Cys Val Ile Ala  
 450 455 460  
 Cys Tyr Phe Tyr Glu Arg Leu Asn Met Asp Tyr Trp Lys Ile Val Ala

465		470		475		480									
Ser	Gln	Gln	Lys	Cys	Lys	Met	Asn	Asn	Gln	Thr	Lys	Asn	Leu	Asp	Cys
				485					490					495	
Met	Met	Asn	Asn	Ser	Ile	Pro	Ala	Val	Glu	Ile	Phe	Met	Val	Lys	Ile
			500					505					510		
Phe	Met	Leu	Leu	Val	Val	Gly	Ile	Thr	Ser	Gly	Met	Trp	Ile	Trp	Thr
		515					520					525			
Ser	Lys	Thr	Leu	Gln	Ser	Trp	Gln	Asn	Val	Cys	Ser	Arg	Arg	Leu	Lys
	530					535					540				
Lys	Arg	Ser	Arg	Arg	Lys	Pro	Ala	Ser	Val	Ile	Thr	Ser	Ser	Gly	Ile
545					550					555					560
Tyr	Lys	Lys	Pro	Gln	His	Pro	Gln	Lys	Thr	His	Leu	Ala	Lys	Tyr	Glu
				565					570					575	
Ser	Thr	Leu	Gln	Pro	Pro	Thr	Cys	Val							
		580						585							

<210> 93  
 <211> 586  
 <212> PRT  
 <213> Xenopus laevis

<400> 93

Met	Asp	Val	Ser	Gly	Val	Thr	Gly	Leu	Leu	Arg	Gly	Thr	Ala	Leu	Leu
1				5					10					15	
Leu	Val	Leu	Ala	Ala	Ala	Leu	Cys	Ser	Ala	Ile	Ser	Ser	Ile	Asn	Pro
			20					25					30		
Asp	Arg	Ser	Gly	Asp	Gly	Arg	Cys	Gln	Ala	Ile	Glu	Ile	Pro	Met	Cys
	35						40					45			
Lys	Asp	Ile	Gly	Tyr	Asn	Met	Thr	Arg	Met	Pro	Asn	Leu	Met	Gly	His
	50					55					60				
Glu	Asn	Gln	Lys	Glu	Ala	Ala	Ile	Gln	Leu	His	Glu	Phe	Ala	Pro	Leu
65					70					75					80
Val	Glu	Tyr	Gly	Cys	His	Ser	His	Leu	Lys	Phe	Phe	Leu	Cys	Ser	Leu
				85					90					95	
Tyr	Ala	Pro	Met	Cys	Thr	Glu	Gln	Val	Ser	Thr	Pro	Ile	Pro	Ala	Cys
		100						105					110		
Arg	Val	Met	Cys	Glu	Gln	Ala	Arg	Leu	Lys	Cys	Ser	Pro	Ile	Met	Glu
		115					120						125		
Gln	Phe	Asn	Phe	Lys	Trp	Pro	Asp	Ser	Leu	Asp	Cys	Ser	Lys	Leu	Pro
	130					135					140				
Asn	Lys	Asn	Asp	Pro	Asn	Tyr	Leu	Cys	Met	Glu	Ala	Pro	Asn	Asn	Gly
145					150					155					160
Thr	Asp	Glu	Thr	Pro	Arg	Gly	Ser	Ser	Met	Leu	Pro	Pro	Ile	Phe	Arg
				165					170					175	

Pro Gln Arg Pro Ser Ser Gly His Glu Ile Tyr Pro Lys Asp Pro Thr  
 180 185 190  
 Ser Arg Ser Ser Cys Glu Asn Ser Gly Lys Phe His His Val Glu Lys  
 195 200 205  
 Ser Ala Ser Cys Ala Pro Leu Cys Ser Ser Ser Val Asp Val Tyr Trp  
 210 215 220  
 Ser Lys Asp Asp Lys Lys Phe Ala Phe Ile Trp Ile Ala Ile Trp Ser  
 225 230 235 240  
 Ile Leu Cys Phe Phe Ser Ser Ala Phe Thr Val Leu Thr Phe Leu Val  
 245 250 255  
 Asp Pro Leu Arg Phe Lys Tyr Pro Glu Arg Pro Ile Ile Phe Leu Ser  
 260 265 270  
 Met Cys Tyr Cys Val Tyr Ser Val Gly Tyr Ile Ile Arg Leu Phe Ala  
 275 280 285  
 Gly Ala Asp Ser Ile Ala Cys Asp Arg Asp Ser Gly Gln Leu Tyr Val  
 290 295 300  
 Ile Gln Glu Gly Leu Glu Ser Thr Gly Cys Thr Ile Val Phe Leu Ile  
 305 310 315 320  
 Leu Tyr Tyr Phe Gly Met Ala Ser Ser Leu Trp Trp Val Ile Leu Thr  
 325 330 335  
 Leu Thr Trp Phe Leu Ala Ala Gly Lys Lys Trp Gly His Glu Ala Ile  
 340 345 350  
 Glu Ala Asn Ser Ser Tyr Phe His Leu Ala Ala Trp Ala Ile Pro Ala  
 355 360 365  
 Val Lys Thr Ile Met Ile Leu Val Met Arg Arg Val Ala Gly Asp Glu  
 370 375 380  
 Leu Thr Gly Val Cys Tyr Val Gly Ser Met Asp Val Asn Ala Leu Thr  
 385 390 395 400  
 Gly Phe Val Leu Ile Pro Leu Ala Cys Tyr Leu Ile Ile Gly Thr Ser  
 405 410 415  
 Phe Ile Leu Ser Gly Phe Val Ala Leu Phe His Ile Arg Arg Val Met  
 420 425 430  
 Lys Thr Gly Gly Glu Asn Thr Asp Lys Leu Glu Lys Leu Met Val Arg  
 435 440 445  
 Ile Gly Val Phe Ser Val Leu Tyr Thr Val Pro Ala Thr Cys Val Ile  
 450 455 460  
 Ala Cys Tyr Phe Tyr Glu Arg Leu Asn Met Asp Phe Trp Lys Ile Leu  
 465 470 475 480  
 Ala Thr Gln Asp Lys Cys Lys Met Asp Ser Gln Thr Lys Thr Leu Asp  
 485 490 495  
 Cys Thr Met Thr Ser Ser Ile Pro Ala Val Glu Ile Phe Met Val Lys

500					505					510					
Ile	Phe	Met	Leu	Leu	Val	Val	Gly	Ile	Thr	Ser	Gly	Met	Trp	Ile	Trp
		515					520					525			
Thr	Ser	Lys	Thr	Val	Gln	Ser	Trp	Gln	Asn	Val	Phe	Ser	Lys	Arg	Leu
		530					535					540			
Lys	Lys	Arg	Asn	Arg	Ser	Lys	Pro	Ala	Ser	Val	Ile	Thr	Ser	Ala	Gly
		545				550				555					560
Ile	Tyr	Lys	Lys	Pro	Gln	His	Pro	Pro	Lys	Val	His	His	Gly	Lys	Tyr
				565					570					575	
Glu	Ser	Ala	Leu	Gln	Ser	Pro	Thr	Cys	Val						
			580					585							

<210> 94  
 <211> 530  
 <212> PRT  
 <213> Xenopus laevis

<400> 94

Met	Glu	Pro	Arg	Val	Val	Thr	Ala	Leu	Leu	Leu	Ser	Leu	Ala	Ala	Ala
1				5					10					15	
Leu	Cys	Ser	Gly	Ile	Ser	Ser	Ile	Asn	Pro	Asp	Arg	Ser	Gly	Glu	Gly
			20					25					30		
Arg	Cys	Gln	Ala	Ile	Glu	Ile	Pro	Met	Cys	Lys	Asp	Ile	Gly	Tyr	Asn
		35					40					45			
Met	Thr	Arg	Met	Pro	Asn	Leu	Met	Gly	His	Glu	Asn	Gln	Lys	Glu	Ala
	50					55					60				
Ala	Ile	Gln	Leu	His	Glu	Phe	Ala	Pro	Leu	Val	Glu	Tyr	Gly	Cys	His
	65				70					75					80
Ser	His	Leu	Lys	Phe	Phe	Leu	Cys	Ser	Leu	Tyr	Ala	Pro	Met	Cys	Thr
				85					90					95	
Glu	Gln	Val	Ser	Thr	Pro	Ile	Pro	Ala	Cys	Arg	Val	Met	Cys	Glu	Gln
			100					105					110		
Ala	Arg	Leu	Lys	Cys	Ser	Pro	Ile	Met	Glu	Gln	Phe	Asn	Phe	Lys	Trp
		115					120					125			
Pro	Asp	Ser	Leu	Asp	Cys	Ser	Lys	Leu	Pro	Asn	Lys	Asn	Asp	Pro	Asn
	130						135				140				
Tyr	Leu	Cys	Met	Glu	Ala	Pro	Asn	Asn	Gly	Thr	Asp	Glu	Ala	Pro	Arg
	145				150					155					160
Ser	Ser	Ser	Ile	Leu	Pro	Pro	Ile	Phe	Arg	Pro	Gln	Arg	Pro	Asn	Ser
				165				170						175	
Gly	His	Glu	Met	Tyr	Pro	Lys	Asp	Pro	Lys	Gly	Arg	Ser	Ser	Cys	Glu
			180					185					190		
Asn	Ser	Gly	Lys	Phe	His	His	Val	Glu	Lys	Ser	Ala	Ser	Cys	Ala	Pro
		195					200						205		

Leu Cys Ser Ser Ser Val Asp Val Tyr Trp Ser Lys Asn Asp Lys Lys  
 210 215 220  
 Phe Ala Phe Ile Trp Ile Ala Ile Trp Ser Leu Leu Cys Phe Phe Ser  
 225 230 235 240  
 Ser Ala Phe Thr Val Leu Thr Phe Leu Val Asp Pro Leu Arg Phe Lys  
 245 250 255  
 Tyr Pro Glu Arg Pro Ile Ile Phe Leu Ser Met Cys Tyr Cys Val Tyr  
 260 265 270  
 Ser Val Gly Tyr Ile Ile Arg Leu Phe Ala Gly Ala Asp Ser Ile Ala  
 275 280 285  
 Cys Asp Arg Asp Ser Gly Gln Leu Tyr Val Ile Gln Glu Gly Leu Glu  
 290 295 300  
 Ser Thr Gly Cys Thr Ile Val Phe Leu Ile Leu Tyr Tyr Phe Gly Met  
 305 310 315 320  
 Ala Ser Ser Leu Trp Trp Val Ile Leu Thr Leu Thr Trp Phe Leu Ala  
 325 330 335  
 Ala Gly Lys Lys Trp Gly His Glu Ala Ile Glu Ala Asn Ser Ser Tyr  
 340 345 350  
 Phe His Leu Ala Ala Trp Ala Ile Pro Ala Val Lys Thr Ile Met Ile  
 355 360 365  
 Leu Val Met Arg Arg Val Ala Gly Asp Glu Leu Thr Gly Val Cys Tyr  
 370 375 380  
 Val Gly Ser Met Asp Val Asn Ala Leu Thr Gly Phe Val Leu Ile Pro  
 385 390 395 400  
 Leu Ala Cys Tyr Leu Ile Ile Gly Thr Ser Phe Ile Leu Ser Gly Phe  
 405 410 415  
 Val Ala Leu Phe His Ile Arg Arg Val Met Lys Thr Gly Gly Glu Asn  
 420 425 430  
 Thr Asp Lys Leu Glu Lys Leu Met Val Arg Ile Gly Val Phe Ser Val  
 435 440 445  
 Leu Tyr Thr Val Pro Ala Thr Cys Val Ile Ala Cys Tyr Phe Tyr Glu  
 450 455 460  
 Arg Leu Asn Met Asp Phe Trp Lys Ile Leu Ala Thr Gln Asp Lys Cys  
 465 470 475 480  
 Lys Met Asp Ser Gln Thr Lys Thr Leu Asp Cys Thr Met Asn Lys Pro  
 485 490 495  
 Ala Ser Val Ile Thr Ser Ala Gly Ile Tyr Lys Lys Pro Gln Gln Pro  
 500 505 510  
 Pro Lys Ile His His Gly Lys Tyr Glu Ser Ala Leu Arg Ser Pro Thr  
 515 520 525  
 Cys Val

<210> 95  
 <211> 580  
 <212> PRT  
 <213> Danio rerio

<400> 95  
 Met Phe Ala Ala Gly Val Gly Ile Ser Leu Gly Leu Leu Cys Phe Ala  
     1                    5                    10                    15  
 Gly Phe Cys Ser Ala Ile Ser Ser Ile Asp Pro Asp Arg Pro Gly Glu  
                     20                    25                    30  
 Gly Arg Cys Gln Glu Ile Ala Ile Pro Leu Cys Lys Asp Ile Gly Tyr  
                     35                    40                    45  
 Asn Leu Thr Val Met Pro Asn Leu Met Gly His Glu Asp Gln Asn Glu  
     50                    55                    60  
 Ala Ala Ile Lys Leu His Glu Phe Ala Pro Leu Ile Glu Phe Gly Cys  
     65                    70                    75                    80  
 His Ser His Leu Lys Phe Phe Leu Cys Ser Leu Tyr Ala Pro Met Cys  
                     85                    90                    95  
 Thr Glu Gln Val Ser Thr Pro Ile Pro Ala Cys Arg Val Met Cys Glu  
                     100                    105                    110  
 Gln Ala Arg Gln Lys Cys Ser Pro Ile Met Glu Gln Phe Asn Phe His  
     115                    120                    125  
 Trp Pro Glu Ser Leu Asp Cys Ser Arg Leu Pro Asn Lys Asn Asp Pro  
     130                    135                    140  
 Asn Tyr Leu Cys Met Glu Ala Pro Asn Asn Gly Thr Asp Glu Pro Pro  
     145                    150                    155                    160  
 Lys Gly Ser His Thr Gln Ser Pro Asp Ser Arg Pro Pro Arg Pro Gly  
                     165                    170                    175  
 Asn Ser Gln Glu Leu Pro Ile Lys Glu Arg Val Gly Lys Thr Thr Cys  
     180                    185                    190  
 Ser Asn Pro Gly Lys Phe His Tyr Val Gln Lys Ser Glu Ser Cys Ala  
     195                    200                    205  
 Pro Lys Cys Tyr Ser Asn Val Asp Val Tyr Trp Ser Gln Gly Asp Lys  
     210                    215                    220  
 Arg Phe Ser Met Val Trp Ile Ala Ile Trp Ser Ile Leu Cys Phe Ile  
     225                    230                    235                    240  
 Ser Ser Ala Phe Thr Val Leu Thr Phe Leu Ile Asp Pro Gln Arg Phe  
                     245                    250                    255  
 Lys Tyr Pro Glu Arg Pro Ile Ile Phe Leu Ser Met Ser Tyr Cys Val  
                     260                    265                    270  
 Tyr Ser Val Gly Phe Leu Val Arg Leu Phe Val Gly Val Glu Asn Val  
     275                    280                    285

Ala Cys Asp Arg Asp Thr Gly Val Gln Tyr Ile Ile Gln Glu Gly Leu  
 290 295 300  
 Glu Ser Thr Gly Cys Thr Ile Val Phe Leu Ile Leu Tyr Tyr Phe Gly  
 305 310 315 320  
 Met Ala Ser Ser Leu Trp Trp Val Ile Leu Thr Leu Thr Trp Phe Leu  
 325 330 335  
 Ala Ala Gly Lys Lys Trp Gly His Glu Ala Ile Glu Ala Asn Ser Ser  
 340 345 350  
 Tyr Phe His Leu Ala Ala Trp Ala Ile Pro Ala Ile Lys Thr Ile Met  
 355 360 365  
 Ile Leu Val Met Arg Lys Val Ala Gly Asp Glu Leu Thr Gly Val Cys  
 370 375 380  
 Tyr Val Gly Ser Met Asp Val Lys Ala Leu Thr Gly Phe Val Leu Ile  
 385 390 395 400  
 Pro Leu Ser Cys Tyr Leu Ile Ile Gly Thr Ser Phe Leu Leu Ser Gly  
 405 410 415  
 Phe Val Ala Leu Phe His Ile Arg Lys Val Met Lys Thr Glu Gly Glu  
 420 425 430  
 Asn Thr Asp Lys Leu Glu Lys Leu Met Val Arg Ile Gly Val Phe Ser  
 435 440 445  
 Val Leu Tyr Thr Val Pro Ala Thr Cys Val Ile Ala Cys Tyr Phe Tyr  
 450 455 460  
 Glu Arg Leu Asn Met Asp Tyr Trp Lys Ile Leu Ala Gly Glu Gln Lys  
 465 470 475 480  
 Cys Ala Asp Asp Gly Lys Ser Gly Glu Glu Cys Val Met Lys Ser Ser  
 485 490 495  
 Ile Pro Ala Val Glu Ile Phe Met Val Lys Ile Phe Met Leu Leu Val  
 500 505 510  
 Val Gly Ile Thr Ser Gly Met Trp Ile Trp Thr Ser Lys Thr Leu Gln  
 515 520 525  
 Ser Trp Gln Asn Val Phe Ser Arg Lys Leu Lys Lys Lys Thr Arg Arg  
 530 535 540  
 Lys Ala Ala Cys Val Phe Thr Gly Ser Gly Pro Tyr Leu Lys Pro His  
 545 550 555 560  
 Pro Ala Leu Lys Gly His Lys Thr Lys Tyr Glu Pro Ala Gly Pro Pro  
 565 570 575  
 Ala Thr Cys Val  
 580

<210> 96  
 <211> 346  
 <212> PRT

<213> Homo sapiens

<400> 96

Met	Phe	Leu	Ser	Ile	Leu	Val	Ala	Leu	Cys	Leu	Trp	Leu	His	Leu	Ala
1				5					10					15	
Leu	Gly	Val	Arg	Gly	Ala	Pro	Cys	Glu	Ala	Val	Arg	Ile	Pro	Met	Cys
			20					25					30		
Arg	His	Met	Pro	Trp	Asn	Ile	Thr	Arg	Met	Pro	Asn	His	Leu	His	His
		35					40					45			
Ser	Thr	Gln	Glu	Asn	Ala	Ile	Leu	Ala	Ile	Glu	Gln	Tyr	Glu	Glu	Leu
	50					55					60				
Val	Asp	Val	Asn	Cys	Ser	Ala	Val	Leu	Arg	Phe	Phe	Phe	Cys	Ala	Met
65					70					75					80
Tyr	Ala	Pro	Ile	Cys	Thr	Leu	Glu	Phe	Leu	His	Asp	Pro	Ile	Lys	Pro
				85					90					95	
Cys	Lys	Ser	Val	Cys	Gln	Arg	Ala	Arg	Asp	Asp	Cys	Glu	Pro	Leu	Met
			100					105					110		
Lys	Met	Tyr	Asn	His	Ser	Trp	Pro	Glu	Ser	Leu	Ala	Cys	Asp	Glu	Leu
		115					120					125			
Pro	Val	Tyr	Asp	Arg	Gly	Val	Cys	Ile	Ser	Pro	Glu	Ala	Ile	Val	Thr
	130					135					140				
Asp	Leu	Pro	Glu	Asp	Val	Lys	Trp	Ile	Asp	Ile	Thr	Pro	Asp	Met	Met
145					150					155					160
Val	Gln	Glu	Arg	Pro	Leu	Asp	Val	Asp	Cys	Lys	Arg	Leu	Ser	Pro	Asp
				165					170					175	
Arg	Cys	Lys	Cys	Lys	Lys	Val	Lys	Pro	Thr	Leu	Ala	Thr	Tyr	Leu	Ser
			180					185					190		
Lys	Asn	Tyr	Ser	Tyr	Val	Ile	His	Ala	Lys	Ile	Lys	Ala	Val	Gln	Arg
		195					200					205			
Ser	Gly	Cys	Asn	Glu	Val	Thr	Thr	Val	Val	Asp	Val	Lys	Glu	Ile	Phe
	210					215					220				
Lys	Ser	Ser	Ser	Pro	Ile	Pro	Arg	Thr	Gln	Val	Pro	Leu	Ile	Thr	Asn
225					230					235					240
Ser	Ser	Cys	Gln	Cys	Pro	His	Ile	Leu	Pro	His	Gln	Asp	Val	Leu	Ile
			245						250					255	
Met	Cys	Tyr	Glu	Trp	Arg	Ser	Arg	Met	Met	Leu	Leu	Glu	Asn	Cys	Leu
		260						265					270		
Val	Glu	Lys	Trp	Arg	Asp	Gln	Leu	Ser	Lys	Arg	Ser	Ile	Gln	Trp	Glu
		275					280					285			
Glu	Arg	Leu	Gln	Glu	Gln	Arg	Arg	Thr	Val	Gln	Asp	Lys	Lys	Lys	Thr
	290					295					300				
Ala	Gly	Arg	Thr	Ser	Arg	Ser	Asn	Pro	Pro	Lys	Pro	Lys	Gly	Lys	Pro
305					310					315					320



Pro Ala Pro Lys Pro Ala Ser Pro Lys Lys Asn Ile Lys Thr Arg Ser  
 325 330 335

Ala Gln Lys Arg Thr Asn Pro Lys Arg Val  
 340 345

<210> 97  
 <211> 346  
 <212> PRT  
 <213> Homo sapiens

<400> 97  
 Met Phe Leu Ser Ile Leu Val Ala Leu Cys Leu Trp Leu His Leu Ala  
 1 5 10 15

Leu Gly Val Arg Gly Ala Pro Cys Glu Ala Val Arg Ile Pro Met Cys  
 20 25 30

Arg His Met Pro Trp Asn Ile Thr Arg Met Pro Asn His Leu His His  
 35 40 45

Ser Thr Gln Glu Asn Ala Ile Leu Ala Ile Glu Gln Tyr Glu Glu Leu  
 50 55 60

Val Asp Val Asn Cys Ser Ala Val Leu Arg Phe Phe Leu Cys Ala Met  
 65 70 75 80

Tyr Ala Pro Ile Cys Thr Leu Glu Phe Leu His Asp Pro Ile Lys Pro  
 85 90 95

Cys Lys Ser Val Cys Gln Arg Ala Arg Asp Asp Cys Glu Pro Leu Met  
 100 105 110

Lys Met Tyr Asn His Ser Trp Pro Glu Ser Leu Ala Cys Asp Glu Leu  
 115 120 125

Pro Val Tyr Asp Arg Gly Val Cys Ile Ser Pro Glu Ala Ile Val Thr  
 130 135 140

Asp Leu Pro Glu Asp Val Lys Trp Ile Asp Ile Thr Pro Asp Met Met  
 145 150 155 160

Val Gln Glu Arg Pro Leu Asp Val Asp Cys Lys Arg Leu Ser Pro Asp  
 165 170 175

Arg Cys Lys Cys Lys Lys Val Lys Pro Thr Leu Ala Thr Tyr Leu Ser  
 180 185 190

Lys Asn Tyr Ser Tyr Val Ile His Ala Lys Ile Lys Ala Val Gln Arg  
 195 200 205

Ser Gly Cys Asn Glu Val Thr Thr Val Val Asp Val Lys Glu Ile Phe  
 210 215 220

Lys Ser Ser Ser Pro Ile Pro Arg Thr Gln Val Pro Leu Ile Thr Asn  
 225 230 235 240

Ser Ser Cys Gln Cys Pro His Ile Leu Pro His Gln Asp Val Leu Ile  
 245 250 255

Met Cys Tyr Glu Trp Arg Ser Arg Met Met Leu Leu Glu Asn Cys Leu  
 260 265 270  
 Val Glu Lys Trp Arg Asp Gln Leu Ser Lys Arg Ser Ile Gln Trp Glu  
 275 280 285  
 Glu Arg Leu Gln Glu Gln Arg Arg Thr Val Gln Asp Lys Lys Lys Thr  
 290 295 300  
 Ala Gly Arg Thr Ser Arg Ser Asn Pro Pro Lys Pro Lys Gly Lys Pro  
 305 310 315 320  
 Pro Ala Pro Lys Pro Ala Ser Pro Lys Lys Asn Ile Lys Thr Arg Ser  
 325 330 335  
 Ala Gln Lys Arg Thr Asn Pro Lys Arg Val  
 340 345  
  
 <210> 98  
 <211> 348  
 <212> PRT  
 <213> Rattus norvegicus  
  
 <400> 98  
 Met Leu Leu Ser Ile Leu Val Ala Leu Cys Leu Trp Leu Arg Leu Ala  
 1 5 10 15  
 Leu Gly Val Arg Gly Ala Pro Cys Glu Ala Val Arg Ile Pro Met Cys  
 20 25 30  
 Arg His Met Pro Trp Asn Ile Thr Arg Met Pro Asn His Leu His His  
 35 40 45  
 Ser Thr Gln Glu Asn Ala Ile Leu Ala Ile Gly Gln Tyr Glu Glu Leu  
 50 55 60  
 Val Asp Val Asn Cys Ser Ser Val Leu Ser Phe Phe Leu Cys Ala Met  
 65 70 75 80  
 Tyr Ala Pro Ile Cys Thr Leu Glu Phe Leu His Asp Pro Ile Lys Pro  
 85 90 95  
 Cys Lys Ser Val Cys Gln Arg Ala Arg Asp Asp Cys Glu Pro Leu Met  
 100 105 110  
 Lys Met Tyr Asn His Ser Trp Pro Glu Ser Leu Ala Cys Asp Glu Leu  
 115 120 125  
 Pro Val Tyr Asp Arg Gly Val Cys Ile Ser Pro Glu Ala Ile Val Thr  
 130 135 140  
 Asp Leu Pro Glu Asp Val Lys Trp Ile Asp Ile Thr Pro Asp Met Met  
 145 150 155 160  
 Val Gln Glu Arg Ser Phe Asp Ala Asp Cys Lys His Leu Ser Pro Asp  
 165 170 175  
 Arg Cys Lys Cys Lys Lys Val Lys Pro Thr Leu Ala Thr Tyr Leu Ser  
 180 185 190  
 Lys Asn Tyr Ser Tyr Val Ile His Ala Lys Ile Lys Ala Val Gln Arg

195	200	205
Ser Gly Cys Asn Glu Val Thr Thr Val Val Asp Val Lys Glu Ile Phe 210 215 220		
Lys Ser Ser Ser Pro Ile Pro Arg Thr Gln Val Pro Leu Ile Thr Asn 225 230 235 240		
Ser Ser Cys Gln Cys Pro His Ile Leu Pro His Gln Asp Val Leu Ile 245 250 255		
Met Cys Tyr Glu Arg Arg Ser Arg Met Met Leu Leu Glu Asn Cys Leu 260 265 270		
Val Glu Lys Trp Arg Asp Gln Leu Ser Arg Arg Ser Thr Gln Trp Glu 275 280 285		
Glu Arg Leu Gln Glu Gln Gln Arg Thr Thr Gln Asp Lys Lys Gln Ile 290 295 300		
Ala Ser Arg Thr Ser Arg Ser Asn Pro Pro Lys Pro Lys Gly Arg Ser 305 310 315 320		
Pro Ala Ser Lys Pro Ala Ser Pro Lys Lys Asn Ile Lys Ala Arg Ser 325 330 335		
Ala Pro Lys Lys Ser Asn Pro Lys Lys Ser Thr Ser 340 345		

<210> 99

<211> 348

<212> PRT

<213> Rattus norvegicus

<220>

<221> VARIANT

<222> (251)

<223> Where Xaa is any amino acid as defined in the  
specification

<400> 99

Met Leu Leu Ser Ile Leu Val Ala Leu Cys Leu Cys Val Arg Leu Ala
1 5 10 15

Leu Gly Val Arg Gly Ala Pro Cys Glu Ala Val Arg Ile Pro Met Cys
20 25 30

Arg His Met Pro Trp Asn Ile Thr Arg Met Pro Asn His Leu His His
35 40 45

Ser Thr Gln Glu Asn Ala Ile Leu Ala Ile Glu Gln Tyr Glu Glu Leu
50 55 60

Val Asp Val Asn Cys Ser Ser Val Leu Arg Phe Phe Leu Cys Ala Met
65 70 75 80

Tyr Ala Pro Ile Cys Thr Leu Glu Phe Leu His Asp Pro Ile Lys Pro
85 90 95

Cys Lys Ser Val Cys Gln Arg Ala Arg Asp Asp Cys Glu Pro Leu Met
100 105 110

Lys Met Tyr Asn His Ser Trp Pro Glu Ser Leu Ala Cys Asp Glu Leu  
 115 120 125  
 Pro Val Tyr Asp Arg Gly Val Cys Ile Ser Pro Glu Ala Ile Val Thr  
 130 135 140  
 Asp Leu Pro Glu Asp Val Lys Trp Ile Asp Ile Thr Pro Asp Met Met  
 145 150 155 160  
 Val Gln Glu Arg Ser Phe Asp Ala Asp Cys Lys His Leu Ser Pro Asp  
 165 170 175  
 Arg Cys Lys Cys Lys Lys Val Lys Pro Thr Leu Ala Thr Tyr Leu Ser  
 180 185 190  
 Lys Asn Tyr Ser Tyr Val Ile His Ala Lys Ile Lys Ala Val Gln Arg  
 195 200 205  
 Ser Gly Cys Asn Glu Val Thr Thr Val Val Asp Val Lys Glu Ile Phe  
 210 215 220  
 Lys Ser Ser Ser Pro Ile Pro Arg Thr Gln Val Pro Leu Ile Thr Asn  
 225 230 235 240  
 Ser Ser Cys Gln Cys Pro His Ile Leu Pro Xaa Gln Asp Val Leu Ile  
 245 250 255  
 Met Cys Tyr Glu Arg Arg Ser Arg Met Met Leu Leu Glu Asn Cys Leu  
 260 265 270  
 Val Glu Lys Trp Arg Asp Gln Leu Ser Arg Arg Ser Thr Gln Trp Glu  
 275 280 285  
 Glu Arg Leu Gln Glu Gln Gln Arg Thr Thr Gln Asp Lys Lys Gln Ile  
 290 295 300  
 Ala Ser Arg Thr Ser Arg Ser Asn Pro Pro Lys Pro Lys Gly Arg Ser  
 305 310 315 320  
 Pro Ala Ser Lys Pro Ala Ser Pro Lys Lys Asn Ile Lys Ala Arg Ser  
 325 330 335  
 Ala Pro Lys Lys Ser Asn Pro Lys Lys Ser Thr Ser  
 340 345

<210> 100  
 <211> 351  
 <212> PRT  
 <213> Rattus norvegicus

<400> 100  
 Met Leu Arg Ser Ile Leu Val Ala Leu Cys Leu Trp Leu Arg Leu Ala  
 1 5 10 15  
 Leu Gly Val Arg Gly Ala Pro Cys Glu Ala Val Arg Ile Pro Met Cys  
 20 25 30  
 Arg His Met Pro Trp Asn Ile Thr Arg Met Pro Asn His Leu His His  
 35 40 45

Ser Thr Gln Glu Asn Ala Ile Leu Ala Ile Glu Gln Tyr Glu Glu Leu  
 50 55 60  
 Val Asp Val Asn Cys Ser Ser Val Leu Arg Phe Phe Leu Cys Ala Met  
 65 70 75 80  
 Tyr Ala Pro Ile Cys Thr Leu Glu Phe Leu His Asp Pro Ile Lys Pro  
 85 90 95  
 Cys Lys Ser Val Cys Gln Arg Ala Arg Asp Asp Cys Glu Pro Leu Met  
 100 105 110  
 Lys Met Tyr Asn His Ser Trp Pro Glu Ser Leu Ala Cys Asp Glu Leu  
 115 120 125  
 Pro Val Tyr Asp Arg Gly Val Cys Ile Ser Pro Glu Ala Ile Val Thr  
 130 135 140  
 Asp Leu Pro Glu Asp Val Lys Trp Ile Asp Ile Thr Pro Asp Met Met  
 145 150 155 160  
 Val Gln Glu Arg Ser Phe Asp Ala Asp Cys Lys Arg Leu Ser Pro Asp  
 165 170 175  
 Arg Cys Lys Cys Lys Lys Val Lys Pro Thr Leu Ala Thr Tyr Leu Ser  
 180 185 190  
 Lys Asn Tyr Ser Tyr Val Ile His Ala Lys Ile Lys Ala Val Gln Arg  
 195 200 205  
 Ser Gly Cys Asn Glu Val Thr Thr Val Val Asp Val Lys Glu Ile Phe  
 210 215 220  
 Lys Ser Leu Ser Pro Ile Pro Arg Thr Gln Val Pro Leu Ile Thr Asn  
 225 230 235 240  
 Ser Ser Cys Gln Cys Pro His Ile Leu Pro His Gln Asp Val Leu Ile  
 245 250 255  
 Met Cys Tyr Glu Trp Arg Ser Arg Met Met Leu Leu Glu Asn Cys Leu  
 260 265 270  
 Val Glu Lys Trp Arg Asp Gln Leu Ser Arg Arg Ser Ile Gln Trp Glu  
 275 280 285  
 Glu Arg Leu Gln Glu Gln Gln Arg Thr Ile Gln Asp Lys Lys Gln Ile  
 290 295 300  
 Ala Ser Arg Thr Ser Arg Thr Ser Arg Ser Asn Pro Pro Lys Ser Lys  
 305 310 315 320  
 Gly Arg Pro Pro Ala Pro Lys Pro Ala Ser Pro Lys Lys Asn Ile Lys  
 325 330 335  
 Ala Arg Ser Ala Pro Lys Lys Ser Asn Leu Lys Lys Ser Ala Ser  
 340 345 350

<210> 101  
 <211> 752  
 <212> PRT  
 <213> Homo sapiens

<400> 101

Met Ala Arg Lys Leu Ser Val Ile Leu Ile Leu Thr Phe Ala Leu Ser  
1 5 10 15

Val Thr Asn Pro Leu His Glu Leu Lys Ala Ala Ala Phe Pro Gln Thr  
20 25 30

Thr Glu Lys Ile Ser Pro Asn Trp Glu Ser Gly Ile Asn Val Asp Leu  
35 40 45

Ala Ile Ser Thr Arg Gln Tyr His Leu Gln Gln Leu Phe Tyr Arg Tyr  
50 55 60

Gly Glu Asn Asn Ser Leu Ser Val Glu Gly Phe Arg Lys Leu Leu Gln  
65 70 75 80

Asn Ile Gly Ile Asp Lys Ile Lys Arg Ile His Ile His His Asp His  
85 90 95

Asp His His Ser Asp His Glu His His Ser Asp His Glu Arg His Ser  
100 105 110

Asp His Glu His His Ser Asp His Glu His His Ser Asp His Asn His  
115 120 125

Ala Ala Ser Gly Lys Asn Lys Arg Lys Ala Leu Cys Pro Asp His Asp  
130 135 140

Ser Asp Ser Ser Gly Lys Asp Pro Arg Asn Ser Gln Gly Lys Gly Ala  
145 150 155 160

His Arg Pro Glu His Ala Ser Gly Arg Arg Asn Val Lys Asp Ser Val  
165 170 175

Ser Ala Ser Glu Val Thr Ser Thr Val Tyr Asn Thr Val Ser Glu Gly  
180 185 190

Thr His Phe Leu Glu Thr Ile Glu Thr Pro Arg Pro Gly Lys Leu Phe  
195 200 205

Pro Lys Asp Val Ser Ser Ser Thr Pro Pro Ser Val Thr Ser Lys Ser  
210 215 220

Arg Val Ser Arg Leu Ala Gly Arg Lys Thr Asn Glu Ser Val Ser Glu  
225 230 235 240

Pro Arg Lys Gly Phe Met Tyr Ser Arg Asn Thr Asn Glu Asn Pro Gln  
245 250 255

Glu Cys Phe Asn Ala Ser Lys Leu Leu Thr Ser His Gly Met Gly Ile  
260 265 270

Gln Val Pro Leu Asn Ala Thr Glu Phe Asn Tyr Leu Cys Pro Ala Ile  
275 280 285

Ile Asn Gln Ile Asp Ala Arg Ser Cys Leu Ile His Thr Ser Glu Lys  
290 295 300

Lys Ala Glu Ile Pro Pro Lys Thr Tyr Ser Leu Gln Ile Ala Trp Val  
305 310 315 320

Gly Gly Phe Ile Ala Ile Ser Ile Ile Ser Phe Leu Ser Leu Leu Gly  
 325 330 335  
 Val Ile Leu Val Pro Leu Met Asn Arg Val Phe Phe Lys Phe Leu Leu  
 340 345 350  
 Ser Phe Leu Val Ala Leu Ala Val Gly Thr Leu Ser Gly Asp Ala Phe  
 355 360 365  
 Leu His Leu Leu Pro His Ser His Ala Ser His His His Ser His Ser  
 370 375 380  
 His Glu Glu Pro Ala Met Glu Met Lys Arg Gly Pro Leu Phe Ser His  
 385 390 395 400  
 Leu Ser Ser Gln Asn Ile Glu Glu Ser Ala Tyr Phe Asp Ser Thr Trp  
 405 410 415  
 Lys Gly Leu Thr Ala Leu Gly Gly Leu Tyr Phe Met Phe Leu Val Glu  
 420 425 430  
 His Val Leu Thr Leu Ile Lys Gln Phe Lys Asp Lys Lys Lys Lys Asn  
 435 440 445  
 Gln Lys Lys Pro Glu Asn Asp Asp Asp Val Glu Ile Lys Lys Gln Leu  
 450 455 460  
 Ser Lys Tyr Glu Ser Gln Leu Ser Thr Asn Glu Glu Lys Val Asp Thr  
 465 470 475 480  
 Asp Asp Arg Thr Glu Gly Tyr Leu Arg Ala Asp Ser Gln Glu Pro Ser  
 485 490 495  
 His Phe Asp Ser Gln Gln Pro Ala Val Leu Glu Glu Glu Glu Val Met  
 500 505 510  
 Ile Ala His Ala His Pro Gln Glu Val Tyr Asn Glu Tyr Val Pro Arg  
 515 520 525  
 Gly Cys Lys Asn Lys Cys His Ser His Phe His Asp Thr Leu Gly Gln  
 530 535 540  
 Ser Asp Asp Leu Ile His His His His Asp Tyr His His Ile Leu His  
 545 550 555 560  
 His His His His Gln Asn His His Pro His Ser His Ser Gln Arg Tyr  
 565 570 575  
 Ser Arg Glu Glu Leu Lys Asp Ala Gly Val Ala Thr Leu Ala Trp Met  
 580 585 590  
 Val Ile Met Gly Asp Gly Leu His Asn Phe Ser Asp Gly Leu Ala Ile  
 595 600 605  
 Gly Ala Ala Phe Thr Glu Gly Leu Ser Ser Gly Leu Ser Thr Ser Val  
 610 615 620  
 Ala Val Phe Cys His Glu Leu Pro His Glu Leu Gly Asp Phe Ala Val  
 625 630 635 640  
 Leu Leu Lys Ala Gly Met Thr Val Lys Gln Ala Val Leu Tyr Asn Ala  
 645 650 655

Leu Ser Ala Met Leu Ala Tyr Leu Gly Met Ala Thr Gly Ile Phe Ile  
 660 665 670  
 Gly His Tyr Ala Glu Asn Val Ser Met Trp Ile Phe Ala Leu Thr Ala  
 675 680 685  
 Gly Leu Phe Met Tyr Val Ala Leu Val Asp Met Val Pro Glu Met Leu  
 690 695 700  
 His Asn Asp Ala Ser Asp His Gly Cys Ser Arg Trp Gly Tyr Phe Phe  
 705 710 715 720  
 Leu Gln Asn Ala Gly Met Leu Leu Gly Phe Gly Ile Met Leu Leu Ile  
 725 730 735  
 Pro Tyr Leu Asn Ile Lys Ser Cys Ser Tyr Lys Phe Leu Val Lys Val  
 740 745 750

<210> 102  
 <211> 755  
 <212> PRT  
 <213> Homo sapiens

<400> 102  
 Met Ala Arg Lys Leu Ser Val Ile Leu Ile Leu Thr Phe Ala Leu Ser  
 1 5 10 15  
 Val Thr Asn Pro Leu His Glu Leu Lys Ala Ala Ala Phe Pro Gln Thr  
 20 25 30  
 Thr Glu Lys Ile Ser Pro Asn Trp Glu Ser Gly Ile Asn Val Asp Leu  
 35 40 45  
 Ala Ile Ser Thr Arg Gln Tyr His Leu Gln Gln Leu Phe Tyr Arg Tyr  
 50 55 60  
 Gly Glu Asn Asn Ser Leu Ser Val Glu Gly Phe Arg Lys Leu Leu Gln  
 65 70 75 80  
 Asn Ile Gly Ile Asp Lys Ile Lys Arg Ile His Ile His His Asp His  
 85 90 95  
 Asp His His Ser Asp His Glu His His Ser Asp His Glu Arg His Ser  
 100 105 110  
 Asp His Glu His His Ser Glu His Glu His His Ser Asp His Asp His  
 115 120 125  
 His Ser His His Asn His Ala Ala Ser Gly Lys Asn Lys Arg Lys Ala  
 130 135 140  
 Leu Cys Pro Asp His Asp Ser Asp Ser Ser Gly Lys Asp Pro Arg Asn  
 145 150 155 160  
 Ser Gln Gly Lys Gly Ala His Arg Pro Glu His Ala Ser Gly Arg Arg  
 165 170 175



Asn Val Lys Asp Ser Val Ser Ala Ser Glu Val Thr Ser Thr Val Tyr  
 180 185 190

Asn Thr Val Ser Glu Gly Thr His Phe Leu Glu Thr Ile Glu Thr Pro  
 195 200 205

Arg Pro Gly Lys Leu Phe Pro Lys Asp Val Ser Ser Ser Thr Pro Pro  
 210 215 220

Ser Val Thr Ser Lys Ser Arg Val Ser Arg Leu Ala Gly Arg Lys Thr  
 225 230 235 240

Asn Glu Ser Val Ser Glu Pro Arg Lys Gly Phe Met Tyr Ser Arg Asn  
 245 250 255

Thr Asn Glu Asn Pro Gln Glu Cys Phe Asn Ala Ser Lys Leu Leu Thr  
 260 265 270

Ser His Gly Met Gly Ile Gln Val Pro Leu Asn Ala Thr Glu Phe Asn  
 275 280 285

Tyr Leu Cys Pro Ala Ile Ile Asn Gln Ile Asp Ala Arg Ser Cys Leu  
 290 295 300

Ile His Thr Ser Glu Lys Lys Ala Glu Ile Pro Pro Lys Thr Tyr Ser  
 305 310 315 320

Leu Gln Ile Ala Trp Val Gly Gly Phe Ile Ala Ile Ser Ile Ile Ser  
 325 330 335

Phe Leu Ser Leu Leu Gly Val Ile Leu Val Pro Leu Met Asn Arg Val  
 340 345 350

Phe Phe Lys Phe Leu Leu Ser Phe Leu Val Ala Leu Ala Val Gly Thr  
 355 360 365

Leu Ser Gly Asp Ala Phe Leu His Leu Leu Pro His Ser His Ala Ser  
 370 375 380

His His His Ser His Ser His Glu Glu Pro Ala Met Glu Met Lys Arg  
 385 390 395 400

Gly Pro Leu Phe Ser His Leu Ser Ser Gln Asn Ile Glu Glu Ser Ala  
 405 410 415

Tyr Phe Asp Ser Thr Trp Lys Gly Leu Thr Ala Leu Gly Gly Leu Tyr  
 420 425 430

Phe Met Phe Leu Val Glu His Val Leu Thr Leu Ile Lys Gln Phe Lys  
 435 440 445

Asp Lys Lys Lys Lys Asn Gln Lys Lys Pro Glu Asn Asp Asp Asp Val  
 450 455 460

Glu Ile Lys Lys Gln Leu Ser Lys Tyr Glu Ser Gln Leu Ser Thr Asn  
 465 470 475 480

Glu Glu Lys Val Asp Thr Asp Asp Arg Thr Glu Gly Tyr Leu Arg Ala  
 485 490 495

Asp Ser Gln Glu Pro Ser His Phe Asp Ser Gln Gln Pro Ala Val Leu  
 500 505 510

Glu Glu Glu Glu Val Met Ile Ala His Ala His Pro Gln Glu Val Tyr  
 515 520 525  
 Asn Glu Tyr Val Pro Arg Gly Cys Lys Asn Lys Cys His Ser His Phe  
 530 535 540  
 His Asp Thr Leu Gly Gln Ser Asp Asp Leu Ile His His His His Asp  
 545 550 555 560  
 Tyr His His Ile Leu His His His His His Gln Asn His His Pro His  
 565 570 575  
 Ser His Ser Gln Arg Tyr Ser Arg Glu Glu Leu Lys Asp Ala Gly Val  
 580 585 590  
 Ala Thr Leu Ala Trp Met Val Ile Met Gly Asp Gly Leu His Asn Phe  
 595 600 605  
 Ser Asp Gly Leu Ala Ile Gly Ala Ala Phe Thr Glu Gly Leu Ser Ser  
 610 615 620  
 Gly Leu Ser Thr Ser Val Ala Val Phe Cys His Glu Leu Pro His Glu  
 625 630 635 640  
 Leu Gly Asp Phe Ala Val Leu Leu Lys Ala Gly Met Thr Val Lys Gln  
 645 650 655  
 Ala Val Leu Tyr Asn Ala Leu Ser Ala Met Leu Ala Tyr Leu Gly Met  
 660 665 670  
 Ala Thr Gly Ile Phe Ile Gly His Tyr Ala Glu Asn Val Ser Met Trp  
 675 680 685  
 Ile Phe Ala Leu Thr Ala Gly Leu Phe Met Tyr Val Ala Leu Val Asp  
 690 695 700  
 Met Val Pro Glu Met Leu His Asn Asp Ala Ser Asp His Gly Cys Ser  
 705 710 715 720  
 Arg Trp Gly Tyr Phe Phe Leu Gln Asn Ala Gly Met Leu Leu Gly Phe  
 725 730 735  
 Gly Ile Met Leu Leu Ile Ser Ile Phe Glu His Lys Ile Val Phe Arg  
 740 745 750  
 Ile Asn Phe  
 755

<210> 103  
 <211> 749  
 <212> PRT  
 <213> Homo sapiens

<400> 103  
 Met Ala Arg Lys Leu Ser Val Ile Leu Ile Leu Thr Phe Ala Leu Ser  
 1 5 10 15  
 Val Thr Asn Pro Leu His Glu Leu Lys Ala Ala Ala Phe Pro Gln Thr  
 20 25 30

Thr Glu Lys Ile Ser Pro Asn Trp Glu Ser Gly Ile Asn Val Asp Leu  
 35 40 45  
 Ala Ile Ser Thr Arg Gln Tyr His Leu Gln Gln Leu Phe Tyr Arg Tyr  
 50 55 60  
 Gly Glu Asn Asn Ser Leu Ser Val Glu Gly Phe Arg Lys Leu Leu Gln  
 65 70 75 80  
 Asn Ile Gly Ile Asp Lys Ile Lys Arg Ile His Ile His His Asp His  
 85 90 95  
 Asp His His Ser Asp His Glu His His Ser Asp His Glu Arg His Ser  
 100 105 110  
 Asp His Glu His His Ser Asp His Glu His His Ser Asp His Asn His  
 115 120 125  
 Ala Ala Ser Gly Lys Asn Lys Arg Lys Ala Leu Cys Pro Asp His Asp  
 130 135 140  
 Ser Asp Ser Ser Gly Lys Asp Pro Arg Asn Ser Gln Gly Lys Gly Ala  
 145 150 155 160  
 His Arg Pro Glu His Ala Ser Gly Arg Arg Asn Val Lys Asp Ser Val  
 165 170 175  
 Ser Ala Ser Glu Val Thr Ser Thr Val Tyr Asn Thr Val Ser Glu Gly  
 180 185 190  
 Thr His Phe Leu Glu Thr Ile Glu Thr Pro Arg Pro Gly Lys Leu Phe  
 195 200 205  
 Pro Lys Asp Val Ser Ser Ser Thr Pro Pro Ser Val Thr Ser Lys Ser  
 210 215 220  
 Arg Val Ser Arg Leu Ala Gly Arg Lys Thr Asn Glu Ser Val Ser Glu  
 225 230 235 240  
 Pro Arg Lys Gly Phe Met Tyr Ser Arg Asn Thr Asn Glu Asn Pro Gln  
 245 250 255  
 Glu Cys Phe Asn Ala Ser Lys Leu Leu Thr Ser His Gly Met Gly Ile  
 260 265 270  
 Gln Val Pro Leu Asn Ala Thr Glu Phe Asn Tyr Leu Cys Pro Ala Ile  
 275 280 285  
 Ile Asn Gln Ile Asp Ala Arg Ser Cys Leu Ile His Thr Ser Glu Lys  
 290 295 300  
 Lys Ala Glu Ile Pro Pro Lys Thr Tyr Ser Leu Gln Ile Ala Trp Val  
 305 310 315 320  
 Gly Gly Phe Ile Ala Ile Ser Ile Ile Ser Phe Leu Ser Leu Leu Gly  
 325 330 335  
 Val Ile Leu Val Pro Leu Met Asn Arg Val Phe Phe Lys Phe Leu Leu  
 340 345 350  
 Ser Phe Leu Val Ala Leu Ala Val Gly Thr Leu Ser Gly Asp Ala Phe  
 355 360 365

Leu His Leu Leu Pro His Ser His Ala Ser His His His Ser His Ser  
 370 375 380  
 His Glu Glu Pro Ala Met Glu Met Lys Arg Gly Pro Leu Phe Ser His  
 385 390 395 400  
 Leu Ser Ser Gln Asn Ile Glu Glu Ser Ala Tyr Phe Asp Ser Thr Trp  
 405 410 415  
 Lys Gly Leu Thr Ala Leu Gly Gly Leu Tyr Phe Met Phe Leu Val Glu  
 420 425 430  
 His Val Leu Thr Leu Ile Lys Gln Phe Lys Asp Lys Lys Lys Lys Asn  
 435 440 445  
 Gln Lys Lys Pro Glu Asn Asp Asp Asp Val Glu Ile Lys Lys Gln Leu  
 450 455 460  
 Ser Lys Tyr Glu Ser Gln Leu Ser Thr Asn Glu Glu Lys Val Asp Thr  
 465 470 475 480  
 Asp Asp Arg Thr Glu Gly Tyr Leu Arg Ala Asp Ser Gln Glu Pro Ser  
 485 490 495  
 His Phe Asp Ser Gln Gln Pro Ala Val Leu Glu Glu Glu Glu Val Met  
 500 505 510  
 Ile Ala His Ala His Pro Gln Glu Val Tyr Asn Glu Tyr Val Pro Arg  
 515 520 525  
 Gly Cys Lys Asn Lys Cys His Ser His Phe His Asp Thr Leu Gly Gln  
 530 535 540  
 Ser Asp Asp Leu Ile His His His His Asp Tyr His His Ile Leu His  
 545 550 555 560  
 His His His His Gln Asn His His Pro His Ser His Ser Gln Arg Tyr  
 565 570 575  
 Ser Arg Glu Glu Leu Lys Asp Ala Gly Val Ala Thr Leu Ala Trp Met  
 580 585 590  
 Val Ile Met Gly Asp Gly Leu His Asn Phe Ser Asp Gly Leu Ala Ile  
 595 600 605  
 Gly Ala Ala Phe Thr Glu Gly Leu Ser Ser Gly Leu Ser Thr Ser Val  
 610 615 620  
 Ala Val Phe Cys His Glu Leu Pro His Glu Leu Gly Asp Phe Ala Val  
 625 630 635 640  
 Leu Leu Lys Ala Gly Met Thr Val Lys Gln Ala Val Leu Tyr Asn Ala  
 645 650 655  
 Leu Ser Ala Met Leu Ala Tyr Leu Gly Met Ala Thr Gly Ile Phe Ile  
 660 665 670  
 Gly His Tyr Ala Glu Asn Val Ser Met Trp Ile Phe Ala Leu Thr Ala  
 675 680 685  
 Gly Leu Phe Met Tyr Val Ala Leu Val Asp Met Val Pro Glu Met Leu

690		695		700
His Asn Asp Ala Ser Asp His Gly Cys Ser Arg Trp Gly Tyr Phe Phe				
705		710		715 720
Leu Gln Asn Ala Gly Met Leu Leu Gly Phe Gly Ile Met Leu Leu Ile				
	725		730	735
Ser Ile Phe Glu His Lys Ile Val Phe Arg Ile Asn Phe				
	740		745	
<210> 104				
<211> 382				
<212> PRT				
<213> Homo sapiens				
<400> 104				
Phe Leu His Leu Leu Pro His Ser His Ala Ser His His His Ser His				
1	5		10	15
Ser His Glu Glu Pro Ala Met Glu Met Lys Arg Gly Pro Leu Phe Ser				
	20		25	30
His Leu Ser Ser Gln Asn Ile Glu Glu Ser Ala Tyr Phe Asp Ser Thr				
	35		40	45
Trp Lys Gly Leu Thr Ala Leu Gly Gly Leu Tyr Phe Met Phe Leu Val				
	50		55	60
Glu His Val Leu Thr Leu Ile Lys Gln Phe Lys Asp Lys Lys Lys Lys				
65	70		75	80
Asn Gln Lys Lys Pro Glu Asn Asp Asp Asp Val Glu Ile Lys Lys Gln				
	85		90	95
Leu Ser Lys Tyr Glu Ser Gln Leu Ser Thr Asn Glu Glu Lys Val Asp				
	100		105	110
Thr Asp Asp Arg Thr Glu Gly Tyr Leu Arg Ala Asp Ser Gln Glu Pro				
	115		120	125
Ser His Phe Asp Ser Gln Gln Pro Ala Val Leu Glu Glu Glu Glu Val				
130	135		140	
Met Ile Ala His Ala His Pro Gln Glu Val Tyr Asn Glu Tyr Val Pro				
145	150		155	160
Arg Gly Cys Lys Asn Lys Cys His Ser His Phe His Asp Thr Leu Gly				
	165		170	175
Gln Ser Asp Asp Leu Ile His His His His Asp Tyr His His Ile Leu				
	180		185	190
His His His His His Gln Asn His His Pro His Ser His Ser Gln Arg				
	195		200	205
Tyr Ser Arg Glu Glu Leu Lys Asp Ala Gly Val Ala Thr Leu Ala Trp				
210	215		220	
Met Val Ile Met Gly Asp Gly Leu His Asn Phe Ser Asp Gly Leu Ala				
225	230		235	240

Ile Gly Ala Ala Phe Thr Glu Gly Leu Ser Ser Gly Leu Ser Thr Ser  
 245 250 255  
 Val Ala Val Phe Cys His Glu Leu Pro His Glu Leu Gly Asp Phe Ala  
 260 265 270  
 Val Leu Leu Lys Ala Gly Met Thr Val Lys Gln Ala Val Leu Tyr Asn  
 275 280 285  
 Ala Leu Ser Ala Met Leu Ala Tyr Leu Gly Met Ala Thr Gly Ile Phe  
 290 295 300  
 Ile Gly His Tyr Ala Glu Asn Val Ser Met Trp Ile Phe Ala Leu Thr  
 305 310 315 320  
 Ala Gly Leu Phe Met Tyr Val Ala Leu Val Asp Met Val Pro Glu Met  
 325 330 335  
 Leu His Asn Asp Ala Ser Asp His Gly Cys Ser Arg Trp Gly Tyr Phe  
 340 345 350  
 Phe Leu Gln Asn Ala Gly Met Leu Leu Gly Phe Gly Ile Met Leu Leu  
 355 360 365  
 Ile Ser Ile Phe Glu His Lys Ile Val Phe Arg Ile Asn Phe  
 370 375 380  
  
 <210> 105  
 <211> 531  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 105  
 Arg Val Tyr Ala Asp Ala Pro Ala Lys Leu Leu Leu Pro Pro Pro Ala  
 1 5 10 15  
 Ala Trp Asp Leu Ala Val Arg Leu Arg Gly Ala Glu Ala Ala Ser Glu  
 20 25 30  
 Arg Gln Val Tyr Ser Val Thr Met Lys Leu Leu Leu Leu His Pro Ala  
 35 40 45  
 Phe Gln Ser Cys Leu Leu Leu Thr Leu Leu Gly Leu Trp Arg Thr Thr  
 50 55 60  
 Pro Glu Ala His Ala Ser Ser Leu Gly Ala Pro Ala Ile Ser Ala Ala  
 65 70 75 80  
 Ser Phe Leu Gln Asp Leu Ile His Arg Tyr Gly Glu Gly Asp Ser Leu  
 85 90 95  
 Thr Leu Gln Gln Leu Lys Ala Leu Leu Asn His Leu Asp Val Gly Val  
 100 105 110  
 Gly Arg Gly Asn Val Thr Gln His Val Gln Gly His Arg Asn Leu Ser  
 115 120 125  
 Thr Cys Phe Ser Ser Gly Asp Leu Phe Thr Ala His Asn Phe Ser Glu  
 130 135 140

Gln Ser Arg Ile Gly Ser Ser Glu Leu Gln Glu Phe Cys Pro Thr Ile  
 145 150 155 160  
 Leu Gln Gln Leu Asp Ser Arg Ala Cys Thr Ser Glu Asn Gln Glu Asn  
 165 170 175  
 Glu Glu Asn Glu Gln Thr Glu Glu Gly Arg Pro Ser Ala Val Glu Val  
 180 185 190  
 Trp Gly Tyr Gly Leu Leu Cys Val Thr Val Ile Ser Leu Cys Ser Leu  
 195 200 205  
 Leu Gly Ala Ser Val Val Pro Phe Met Lys Lys Thr Phe Tyr Lys Arg  
 210 215 220  
 Leu Leu Leu Tyr Phe Ile Ala Leu Ala Ile Gly Thr Leu Tyr Ser Asn  
 225 230 235 240  
 Ala Leu Phe Gln Leu Ile Pro Glu Ala Phe Gly Phe Asn Pro Leu Glu  
 245 250 255  
 Asp Tyr Tyr Val Ser Lys Ser Ala Val Val Phe Gly Gly Phe Tyr Leu  
 260 265 270  
 Phe Phe Phe Thr Glu Lys Ile Leu Lys Ile Leu Leu Lys Gln Lys Asn  
 275 280 285  
 Glu His His His Gly His Ser His Tyr Ala Ser Glu Ser Leu Pro Ser  
 290 295 300  
 Lys Lys Asp Gln Glu Glu Gly Val Met Glu Lys Leu Gln Asn Gly Asp  
 305 310 315 320  
 Leu Asp His Met Ile Pro Gln His Cys Ser Ser Glu Leu Asp Gly Lys  
 325 330 335  
 Ala Pro Met Val Asp Glu Lys Val Ile Val Gly Ser Leu Ser Val Gln  
 340 345 350  
 Asp Leu Gln Ala Ser Gln Ser Ala Cys Tyr Trp Leu Lys Gly Val Arg  
 355 360 365  
 Tyr Ser Asp Ile Gly Thr Leu Ala Trp Met Ile Thr Leu Ser Asp Gly  
 370 375 380  
 Leu His Asn Phe Ile Asp Gly Leu Ala Ile Gly Ala Ser Phe Thr Val  
 385 390 395 400  
 Ser Val Phe Gln Gly Ile Ser Thr Ser Val Ala Ile Leu Cys Glu Glu  
 405 410 415  
 Phe Pro His Glu Leu Gly Asp Phe Val Ile Leu Leu Asn Ala Gly Met  
 420 425 430  
 Ser Ile Gln Gln Ala Leu Phe Phe Asn Phe Leu Ser Ala Cys Cys Cys  
 435 440 445  
 Tyr Leu Gly Leu Ala Phe Gly Ile Leu Ala Gly Ser His Phe Ser Ala  
 450 455 460  
 Asn Trp Ile Phe Ala Leu Ala Gly Gly Met Phe Leu Tyr Ile Ser Leu  
 465 470 475 480

Ala Asp Met Phe Pro Glu Met Asn Glu Val Cys Gln Glu Asp Glu Arg  
485 490 495

Lys Gly Ser Ile Leu Ile Pro Phe Ile Ile Gln Asn Leu Gly Leu Leu  
500 505 510

Thr Gly Phe Thr Ile Met Val Val Leu Thr Met Tyr Ser Gly Gln Ile  
515 520 525

Gln Ile Gly  
530

<210> 106  
<211> 1219  
<212> PRT  
<213> Homo sapiens

<400> 106  
Met Leu Arg Arg Val Thr Val Ala Ala Val Cys Ala Thr Arg Arg Lys  
1 5 10 15

Leu Cys Glu Ala Gly Arg Asp Val Ala Ala Leu Trp Gly Ile Glu Thr  
20 25 30

Arg Gly Arg Cys Glu Asp Ser Ala Ala Ala Arg Pro Phe Pro Ile Leu  
35 40 45

Ala Met Pro Gly Arg Asn Lys Ala Lys Ser Thr Cys Ser Cys Pro Asp  
50 55 60

Leu Gln Pro Asn Gly Gln Asp Leu Gly Glu Asn Ser Arg Val Ala Arg  
65 70 75 80

Leu Gly Ala Asp Glu Ser Glu Glu Glu Gly Arg Arg Gly Ser Leu Ser  
85 90 95

Asn Ala Gly Asp Pro Glu Ile Val Lys Ser Pro Ser Asp Pro Lys Gln  
100 105 110

Tyr Arg Tyr Ile Lys Leu Gln Asn Gly Leu Gln Ala Leu Leu Ile Ser  
115 120 125

Asp Leu Ser Asn Met Glu Gly Lys Thr Gly Asn Thr Thr Asp Asp Glu  
130 135 140

Glu Glu Glu Glu Val Glu Glu Glu Glu Glu Asp Asp Asp Glu Asp Ser  
145 150 155 160

Gly Ala Glu Ile Glu Asp Asp Asp Glu Glu Gly Phe Asp Asp Glu Asp  
165 170 175

Glu Phe Asp Asp Glu His Asp Asp Asp Leu Asp Thr Glu Asp Asn Glu  
180 185 190

Leu Glu Glu Leu Glu Glu Arg Ala Glu Ala Arg Lys Lys Thr Thr Glu  
195 200 205

Lys Gln Gln Leu Gln Ser Leu Phe Leu Leu Trp Ser Lys Leu Thr Asp  
210 215 220



Arg Leu Trp Phe Lys Ser Thr Tyr Ser Lys Met Ser Ser Thr Leu Leu  
 225 230 235 240  
 Val Glu Thr Arg Asn Leu Tyr Gly Val Val Gly Ala Glu Ser Arg Ser  
 245 250 255  
 Ala Pro Val Gln His Leu Ala Gly Trp Gln Ala Glu Glu Gln Gln Gly  
 260 265 270  
 Glu Thr Asp Thr Val Leu Ser Ala Ala Ala Leu Cys Val Gly Val Gly  
 275 280 285  
 Ser Phe Ala Asp Pro Asp Asp Leu Pro Gly Leu Ala His Phe Leu Glu  
 290 295 300  
 His Met Val Phe Met Gly Ser Leu Lys Tyr Pro Asp Glu Asn Gly Phe  
 305 310 315 320  
 Asp Ala Phe Leu Lys Lys His Gly Gly Ser Asp Asn Ala Ser Thr Asp  
 325 330 335  
 Cys Glu Arg Thr Val Phe Gln Phe Asp Val Gln Arg Lys Tyr Phe Lys  
 340 345 350  
 Glu Ala Leu Asp Arg Trp Ala Gln Phe Phe Ile His Pro Leu Met Ile  
 355 360 365  
 Arg Asp Ala Ile Asp Arg Glu Val Glu Ala Val Asp Ser Glu Tyr Gln  
 370 375 380  
 Leu Ala Arg Pro Ser Asp Ala Asn Arg Lys Glu Met Leu Phe Gly Ser  
 385 390 395 400  
 Leu Ala Arg Pro Gly His Pro Met Gly Lys Phe Phe Trp Gly Asn Ala  
 405 410 415  
 Glu Thr Leu Lys His Glu Pro Arg Lys Asn Asn Ile Asp Thr His Ala  
 420 425 430  
 Arg Leu Arg Glu Phe Trp Met Arg Tyr Tyr Ser Ser His Tyr Met Thr  
 435 440 445  
 Leu Val Val Gln Ser Lys Glu Thr Leu Asp Thr Leu Glu Lys Trp Val  
 450 455 460  
 Thr Glu Ile Phe Ser Gln Ile Pro Asn Asn Gly Leu Pro Arg Pro Asn  
 465 470 475 480  
 Phe Gly His Leu Thr Asp Pro Phe Asp Thr Pro Ala Phe Asn Lys Leu  
 485 490 495  
 Tyr Arg Val Val Pro Ile Arg Lys Ile His Ala Leu Thr Ile Thr Trp  
 500 505 510  
 Ala Leu Pro Pro Gln Gln Gln His Tyr Arg Val Lys Pro Leu His Tyr  
 515 520 525  
 Ile Ser Trp Leu Val Gly His Glu Gly Lys Gly Ser Ile Leu Ser Phe  
 530 535 540  
 Leu Arg Lys Lys Cys Trp Ala Leu Ala Leu Phe Gly Gly Asn Gly Glu  
 545 550 555 560

Thr Gly Phe Glu Gln Asn Ser Thr Tyr Ser Val Phe Ser Ile Ser Ile  
 565 570 575  
 Thr Leu Thr Asp Glu Gly Tyr Glu His Phe Tyr Glu Val Ala Tyr Thr  
 580 585 590  
 Val Phe Leu Tyr Leu Lys Met Leu Gln Lys Leu Gly Pro Glu Lys Arg  
 595 600 605  
 Ile Phe Glu Glu Ile Arg Lys Ile Glu Asp Asn Glu Phe His Tyr Gln  
 610 615 620  
 Glu Gln Thr Asp Pro Val Glu Tyr Val Glu Asn Met Cys Glu Asn Met  
 625 630 635 640  
 Gln Leu Tyr Pro Leu Gln Asp Ile Leu Thr Gly Asp Gln Leu Leu Phe  
 645 650 655  
 Glu Tyr Lys Pro Glu Val Ile Gly Glu Ala Leu Asn Gln Leu Val Pro  
 660 665 670  
 Gln Lys Ala Asn Leu Val Leu Leu Ser Gly Ala Asn Glu Gly Lys Cys  
 675 680 685  
 Asp Leu Lys Glu Lys Trp Phe Gly Thr Gln Tyr Ser Ile Glu Asp Ile  
 690 695 700  
 Glu Asn Ser Trp Ala Glu Leu Trp Asn Ser Asn Phe Glu Leu Asn Pro  
 705 710 715 720  
 Asp Leu His Leu Pro Ala Glu Asn Lys Tyr Ile Ala Thr Asp Phe Thr  
 725 730 735  
 Leu Lys Ala Phe Asp Cys Pro Glu Thr Glu Tyr Pro Val Lys Ile Val  
 740 745 750  
 Asn Thr Pro Gln Gly Cys Leu Trp Tyr Lys Lys Asp Asn Lys Phe Lys  
 755 760 765  
 Ile Pro Lys Ala Tyr Ile Arg Phe His Leu Ile Ser Pro Leu Ile Gln  
 770 775 780  
 Lys Ser Ala Ala Asn Val Val Leu Phe Asp Ile Phe Val Asn Ile Leu  
 785 790 795 800  
 Thr His Asn Leu Ala Glu Pro Ala Tyr Glu Ala Asp Val Ala Gln Leu  
 805 810 815  
 Glu Tyr Lys Leu Ala Ala Gly Glu His Gly Leu Ile Ile Arg Val Lys  
 820 825 830  
 Gly Phe Asn His Lys Leu Pro Leu Leu Phe Gln Leu Ile Ile Asp Tyr  
 835 840 845  
 Leu Ala Glu Phe Asn Ser Thr Pro Ala Val Phe Thr Met Ile Thr Glu  
 850 855 860  
 Gln Leu Lys Lys Thr Tyr Phe Asn Ile Leu Ile Lys Pro Glu Thr Leu  
 865 870 875 880  
 Ala Lys Asp Val Arg Leu Leu Ile Leu Glu Tyr Ala Arg Trp Ser Met

885										890					895				
Ile	Asp	Lys	Tyr	Gln	Ala	Leu	Met	Asp	Gly	Leu	Ser	Leu	Glu	Ser	Leu				
			900					905					910						
Leu	Ser	Phe	Val	Lys	Glu	Phe	Lys	Ser	Gln	Leu	Phe	Val	Glu	Gly	Leu				
		915					920					925							
Val	Gln	Gly	Asn	Val	Thr	Ser	Thr	Glu	Ser	Met	Asp	Phe	Leu	Lys	Tyr				
	930					935					940								
Val	Val	Asp	Lys	Leu	Asn	Phe	Lys	Pro	Leu	Glu	Gln	Glu	Met	Pro	Val				
945					950					955					960				
Gln	Phe	Gln	Val	Val	Glu	Leu	Pro	Ser	Gly	His	His	Leu	Cys	Lys	Val				
			965						970					975					
Lys	Ala	Leu	Asn	Lys	Gly	Asp	Ala	Asn	Ser	Glu	Val	Thr	Val	Tyr	Tyr				
			980					985					990						
Gln	Ser	Gly	Thr	Arg	Ser	Leu	Arg	Glu	Tyr	Thr	Leu	Met	Glu	Leu	Leu				
		995				1000						1005							
Val	Met	His	Met	Glu	Glu	Pro	Cys	Phe	Asp	Phe	Leu	Arg	Thr	Lys	Gln				
1010					1015					1020									
Thr	Leu	Gly	Tyr	His	Val	Tyr	Pro	Thr	Cys	Arg	Asn	Thr	Ser	Gly	Ile				
1025				1030					1035						1040				
Leu	Gly	Phe	Ser	Val	Thr	Val	Gly	Thr	Gln	Ala	Thr	Lys	Tyr	Asn	Ser				
			1045					1050						1055					
Glu	Val	Val	Asp	Lys	Lys	Ile	Glu	Glu	Phe	Leu	Ser	Ser	Phe	Glu	Glu				
		1060					1065					1070							
Lys	Ile	Glu	Asn	Leu	Thr	Glu	Glu	Ala	Phe	Asn	Thr	Gln	Val	Thr	Ala				
	1075					1080					1085								
Leu	Ile	Lys	Leu	Lys	Glu	Cys	Glu	Asp	Thr	His	Leu	Gly	Glu	Glu	Val				
1090				1095						1100									
Asp	Arg	Asn	Trp	Asn	Glu	Val	Val	Thr	Gln	Gln	Tyr	Leu	Phe	Asp	Arg				
1105				1110					1115						1120				
Leu	Ala	His	Glu	Ile	Glu	Ala	Leu	Lys	Ser	Phe	Ser	Lys	Ser	Asp	Leu				
			1125					1130						1135					
Val	Asn	Trp	Phe	Lys	Ala	His	Arg	Gly	Pro	Gly	Ser	Lys	Met	Leu	Ser				
		1140					1145					1150							
Val	His	Val	Val	Gly	Tyr	Gly	Lys	Tyr	Glu	Leu	Glu	Glu	Asp	Gly	Ser				
	1155				1160						1165								
Pro	Ser	Ser	Glu	Asp	Ser	Asn	Ser	Ser	Cys	Glu	Val	Met	Gln	Leu	Thr				
	1170				1175						1180								
Tyr	Leu	Pro	Thr	Ser	Pro	Leu	Leu	Ala	Asp	Cys	Ile	Ile	Pro	Ile	Thr				
1185				1190					1195						1200				
Asp	Ile	Arg	Ala	Phe	Thr	Thr	Thr	Leu	Asn	Leu	Leu	Pro	Tyr	His	Lys				
			1205					1210						1215					

Ile Val Lys

<210> 107

<211> 1229

<212> PRT

<213> Rattus norvegicus

<400> 107

Met Leu Arg Arg Val Ala Val Ala Ala Val Phe Ala Thr Gly Arg Lys  
1 5 10 15

Leu Arg Cys Glu Ala Gly Arg Asp Val Thr Ala Val Gly Arg Ile Glu  
20 25 30

Ala Arg Gly Leu Cys Glu Glu Ser Ala Lys Pro Phe Pro Thr Leu Thr  
35 40 45

Met Pro Gly Arg Asn Lys Ala Lys Ser Thr Cys Ser Cys Pro Asp Leu  
50 55 60

Gln Pro Asn Gly Gln Asp Leu Gly Glu Ser Gly Arg Val Ala Arg Leu  
65 70 75 80

Gly Ala Asp Glu Ser Glu Glu Glu Gly Arg Ser Leu Ser Asn Val Gly  
85 90 95

Asp Pro Glu Ile Ile Lys Ser Pro Ser Asp Pro Lys Gln Tyr Arg Tyr  
100 105 110

Ile Lys Leu Gln Asn Gly Leu Gln Ala Leu Leu Ile Ser Asp Leu Ser  
115 120 125

Asn Val Glu Gly Lys Thr Gly Asn Ala Thr Asp Glu Glu Glu Glu Glu  
130 135 140

Glu Glu Glu Glu Glu Glu Gly Glu Glu Glu Glu Glu Glu Glu Asp  
145 150 155 160

Asp Asp Asp Asp Asp Asp Glu Asp Ser Gly Ala Glu Ile Gln Asp Asp  
165 170 175

Asp Glu Glu Gly Phe Asp Asp Glu Glu Glu Phe Asp Asp Asp Glu His  
180 185 190

Asp Asp Asp Asp Leu Asp Asn Glu Glu Asn Glu Leu Glu Glu Leu Glu  
195 200 205

Glu Arg Val Glu Ala Arg Lys Lys Thr Thr Glu Lys Gln Gln Ser Gln  
210 215 220

Asn Leu Phe Leu Leu Trp Ser Lys Leu Thr Asp Arg Leu Trp Phe Lys  
225 230 235 240

Ser Ser Tyr Ser Lys Met Ser Ser Thr Leu Leu Val Glu Thr Arg Asn  
245 250 255

Leu Tyr Gly Val Val Gly Ala Glu Ser Arg Ser Ala Pro Val Glu His  
260 265 270

Leu Ala Gly Trp Gln Val Glu Glu Gln Gln Gly Glu Thr Asp Thr Val

275					280					285					
Leu	Ser	Ala	Ala	Ala	Leu	Cys	Val	Gly	Val	Gly	Ser	Phe	Ala	Asp	Pro
290					295					300					
Asp	Asp	Leu	Pro	Gly	Leu	Ala	His	Phe	Leu	Glu	His	Met	Val	Phe	Met
305					310					315					320
Gly	Ser	Leu	Lys	Tyr	Pro	Asp	Glu	Asn	Gly	Phe	Asp	Ala	Phe	Leu	Lys
				325					330					335	
Lys	His	Gly	Gly	Ser	Asp	Asn	Ala	Ser	Thr	Asp	Cys	Glu	Arg	Thr	Val
			340					345					350		
Phe	Gln	Phe	Asp	Val	Gln	Arg	Lys	Tyr	Phe	Lys	Glu	Ala	Leu	Asp	Arg
		355					360					365			
Trp	Ala	Gln	Phe	Phe	Ile	His	Pro	Leu	Met	Ile	Arg	Asp	Ala	Ile	Asp
		370					375					380			
Arg	Glu	Val	Glu	Ala	Val	Asp	Ser	Glu	Tyr	Gln	Leu	Ala	Arg	Pro	Ser
385					390					395					400
Asp	Ala	Asn	Arg	Lys	Glu	Met	Leu	Phe	Gly	Ser	Leu	Ala	Arg	Pro	Gly
				405					410					415	
His	Pro	Met	Gly	Lys	Phe	Phe	Trp	Gly	Asn	Ala	Glu	Thr	Leu	Lys	His
			420					425					430		
Glu	Pro	Lys	Lys	Asn	Asn	Ile	Asp	Thr	His	Ala	Arg	Leu	Arg	Glu	Phe
		435					440					445			
Trp	Met	Arg	Tyr	Tyr	Ser	Ala	His	Tyr	Met	Thr	Leu	Val	Val	Gln	Ser
		450					455					460			
Lys	Glu	Thr	Leu	Asp	Thr	Leu	Glu	Lys	Trp	Val	Thr	Glu	Ile	Phe	Ser
465					470					475					480
Gln	Ile	Pro	Asn	Asn	Gly	Leu	Pro	Lys	Pro	Asn	Phe	Ser	His	Leu	Thr
				485					490					495	
Asp	Pro	Phe	Asp	Thr	Pro	Ala	Phe	Asn	Lys	Leu	Tyr	Arg	Val	Val	Pro
			500					505					510		
Ile	Arg	Lys	Ile	His	Ala	Leu	Thr	Ile	Thr	Trp	Ala	Leu	Pro	Pro	Gln
		515					520					525			
Gln	Gln	His	Tyr	Arg	Val	Lys	Pro	Leu	His	Tyr	Ile	Ser	Trp	Leu	Val
		530					535					540			
Gly	His	Glu	Gly	Lys	Gly	Ser	Ile	Leu	Ser	Tyr	Leu	Arg	Lys	Lys	Cys
545					550					555					560
Trp	Ala	Leu	Ala	Leu	Phe	Gly	Gly	Asn	Gly	Glu	Thr	Gly	Phe	Glu	Gln
				565					570					575	
Asn	Ser	Thr	Tyr	Ser	Val	Phe	Ser	Ile	Ser	Ile	Thr	Leu	Thr	Asp	Glu
			580					585					590		
Gly	Tyr	Glu	His	Phe	Tyr	Glu	Val	Ala	His	Thr	Val	Phe	Gln	Tyr	Leu
		595					600					605			

Lys Met Leu Gln Lys Leu Gly Pro Glu Lys Arg Val Phe Glu Glu Ile  
 610 615 620  
 Gln Lys Ile Glu Asp Asn Glu Phe His Tyr Gln Glu Gln Thr Asp Pro  
 625 630 635 640  
 Val Glu Tyr Val Glu Asn Met Cys Glu Asn Met Gln Leu Tyr Pro Arg  
 645 650 655  
 Gln Asp Phe Leu Thr Gly Asp Gln Leu Leu Phe Glu Tyr Lys Pro Glu  
 660 665 670  
 Val Ile Ala Glu Ala Leu Asn Gln Leu Val Pro Gln Lys Ala Asn Leu  
 675 680 685  
 Val Leu Leu Ser Gly Ala Asn Glu Gly Arg Cys Asp Leu Lys Glu Lys  
 690 695 700  
 Trp Phe Gly Thr Gln Tyr Ser Ile Glu Asp Ile Glu Asn Ser Trp Thr  
 705 710 715 720  
 Glu Leu Trp Lys Ser Asn Phe Asp Leu Asn Ser Asp Leu His Leu Pro  
 725 730 735  
 Ala Glu Asn Lys Tyr Ile Ala Thr Asp Phe Thr Leu Lys Ala Phe Asp  
 740 745 750  
 Cys Pro Glu Thr Glu Tyr Pro Ala Lys Ile Val Asn Thr Pro Gln Gly  
 755 760 765  
 Cys Leu Trp Tyr Lys Lys Asp Asn Lys Phe Lys Ile Pro Lys Ala Tyr  
 770 775 780  
 Ile Arg Phe His Leu Ile Ser Pro Leu Ile Gln Lys Ser Ala Ala Asn  
 785 790 795 800  
 Val Val Leu Phe Asp Ile Phe Val Asn Ile Leu Thr His Asn Leu Ala  
 805 810 815  
 Glu Pro Ala Tyr Glu Ala Asp Val Ala Gln Leu Glu Tyr Lys Leu Val  
 820 825 830  
 Ala Gly Glu His Gly Leu Ile Ile Arg Val Lys Gly Phe Asn His Lys  
 835 840 845  
 Leu Pro Leu Leu Phe Gln Leu Ile Ile Asp Tyr Leu Thr Glu Phe Ser  
 850 855 860  
 Ser Thr Pro Ala Val Phe Thr Met Ile Thr Glu Gln Leu Lys Lys Thr  
 865 870 875 880  
 Tyr Phe Asn Ile Leu Ile Lys Pro Glu Thr Leu Ala Lys Asp Val Arg  
 885 890 895  
 Leu Leu Ile Leu Glu Tyr Ser Arg Trp Ser Met Ile Asp Lys Tyr Arg  
 900 905 910  
 Ala Leu Met Asp Gly Leu Ser Leu Glu Ser Leu Leu Asn Phe Val Lys  
 915 920 925  
 Asp Phe Lys Ser Gln Leu Phe Val Glu Gly Leu Val Gln Gly Asn Val  
 930 935 940

Thr Ser Thr Glu Ser Met Asp Phe Leu Arg Tyr Val Val Asp Lys Leu  
 945 950 955 960  
 Asn Phe Val Pro Leu Glu Arg Glu Met Pro Val Gln Phe Gln Val Val  
 965 970 975  
 Glu Leu Pro Ser Gly His His Leu Cys Lys Val Arg Ala Leu Asn Lys  
 980 985 990  
 Gly Asp Ala Asn Ser Glu Val Thr Val Tyr Tyr Gln Ser Gly Thr Arg  
 995 1000 1005  
 Ser Leu Arg Glu Tyr Thr Leu Met Glu Leu Leu Val Met His Met Glu  
 1010 1015 1020  
 Glu Pro Cys Phe Asp Phe Leu Arg Thr Lys Gln Thr Leu Gly Tyr His  
 1025 1030 1035 1040  
 Val Tyr Pro Thr Cys Arg Asn Thr Ser Gly Ile Leu Gly Phe Ser Val  
 1045 1050 1055  
 Thr Val Gly Thr Gln Ala Thr Lys Tyr Asn Ser Glu Thr Val Asp Lys  
 1060 1065 1070  
 Lys Ile Glu Glu Phe Leu Ser Ser Phe Glu Glu Lys Ile Glu Asn Leu  
 1075 1080 1085  
 Thr Glu Asp Ala Phe Asn Thr Gln Val Thr Ala Leu Ile Lys Leu Lys  
 1090 1095 1100  
 Glu Cys Glu Asp Thr His Leu Gly Glu Glu Val Asp Arg Asn Trp Asn  
 1105 1110 1115 1120  
 Glu Val Val Thr Gln Gln Tyr Leu Phe Asp Arg Leu Ala His Glu Ile  
 1125 1130 1135  
 Glu Ala Leu Lys Ser Phe Ser Lys Ser Asp Leu Val Ser Trp Phe Lys  
 1140 1145 1150  
 Ala His Arg Gly Pro Gly Ser Lys Met Leu Ser Val His Val Val Gly  
 1155 1160 1165  
 Tyr Gly Lys Tyr Glu Leu Glu Glu Asp Gly Ala Pro Val Cys Glu Asp  
 1170 1175 1180  
 Pro Asn Ser Arg Glu Gly Met Gln Leu Ile Tyr Leu Pro Pro Ser Pro  
 1185 1190 1195 1200  
 Leu Leu Ala Glu Ser Thr Thr Pro Ile Thr Asp Ile Arg Ala Phe Thr  
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 Ala Thr Leu Ser Leu Phe Pro Tyr His Lys Ile Val Lys  
 1220 1225

<210> 108  
 <211> 1017  
 <212> PRT  
 <213> Homo sapiens  
 <400> 108

Met Leu Arg Arg Val Thr Val Ala Ala Val Cys Ala Thr Arg Arg Lys  
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 Leu Cys Glu Ala Gly Arg Glu Leu Ala Ala Leu Trp Gly Ile Glu Thr  
 20 25 30  
 Arg Gly Arg Cys Glu Asp Ser Ala Ala Ala Arg Pro Phe Pro Ile Leu  
 35 40 45  
 Ala Met Pro Gly Arg Asn Lys Ala Lys Ser Thr Cys Ser Cys Pro Asp  
 50 55 60  
 Leu Gln Pro Asn Gly Gln Asp Leu Gly Glu Asn Ser Arg Val Ala Arg  
 65 70 75 80  
 Leu Gly Ala Asp Glu Ser Glu Glu Glu Gly Arg Arg Gly Ser Leu Ser  
 85 90 95  
 Asn Ala Gly Asp Pro Glu Ile Val Lys Ser Pro Ser Asp Pro Lys Gln  
 100 105 110  
 Tyr Arg Tyr Ile Lys Leu Gln Asn Gly Leu Gln Ala Leu Leu Ile Ser  
 115 120 125  
 Asp Leu Ser Asn Met Glu Gly Lys Thr Gly Asn Thr Thr Asp Asp Glu  
 130 135 140  
 Glu Glu Glu Glu Val Glu Glu Glu Glu Glu Asp Asp Asp Glu Asp Ser  
 145 150 155 160  
 Gly Ala Glu Ile Glu Asp Asp Asp Glu Glu Gly Phe Asp Asp Glu Asp  
 165 170 175  
 Glu Phe Asp Asp Glu His Asp Asp Asp Leu Asp Thr Glu Asp Asn Glu  
 180 185 190  
 Leu Glu Glu Leu Glu Glu Arg Ala Glu Ala Arg Lys Lys Thr Thr Glu  
 195 200 205  
 Lys Gln Gln Leu Gln Ser Leu Phe Leu Leu Trp Ser Lys Leu Thr Asp  
 210 215 220  
 Arg Leu Trp Phe Lys Ser Thr Tyr Ser Lys Met Ser Ser Thr Leu Leu  
 225 230 235 240  
 Val Glu Thr Arg Asn Leu Tyr Gly Val Val Gly Ala Glu Ser Arg Ser  
 245 250 255  
 Ala Pro Val Gln His Leu Ala Gly Trp Gln Ala Glu Glu Gln Gln Gly  
 260 265 270  
 Glu Thr Asp Thr Val Leu Ser Ala Ala Ala Leu Cys Val Gly Val Gly  
 275 280 285  
 Ser Phe Ala Asp Pro Asp Asp Leu Pro Gly Leu Ala His Phe Leu Glu  
 290 295 300  
 His Met Val Phe Met Gly Ser Leu Lys Tyr Pro Asp Glu Asn Gly Phe  
 305 310 315 320  
 Asp Ala Phe Leu Lys Lys His Gly Gly Ser Asp Asn Ala Ser Thr Asp  
 325 330 335



Cys Glu Arg Thr Val Phe Gln Phe Asp Val Gln Arg Lys Tyr Phe Lys  
 340 345 350  
 Glu Ala Leu Asp Arg Trp Ala Gln Phe Phe Ile His Pro Leu Met Ile  
 355 360 365  
 Arg Asp Ala Ile Asp Arg Glu Val Glu Ala Val Asp Ser Glu Tyr Gln  
 370 375 380  
 Leu Ala Arg Pro Ser Asp Ala Asn Arg Lys Glu Met Leu Phe Gly Ser  
 385 390 395 400  
 Leu Ala Arg Pro Gly His Pro Met Gly Lys Phe Phe Trp Gly Asn Ala  
 405 410 415  
 Glu Thr Leu Lys His Glu Pro Arg Lys Asn Asn Ile Asp Thr His Ala  
 420 425 430  
 Arg Leu Arg Glu Phe Trp Met Arg Tyr Tyr Ser Ser His Tyr Met Thr  
 435 440 445  
 Leu Val Val Gln Ser Lys Glu Thr Leu Asp Thr Leu Glu Lys Trp Val  
 450 455 460  
 Thr Glu Ile Phe Ser Gln Ile Pro Asn Asn Gly Leu Pro Arg Pro Asn  
 465 470 475 480  
 Phe Gly His Leu Thr Asp Pro Phe Asp Thr Pro Ala Phe Asn Lys Leu  
 485 490 495  
 Tyr Arg Val Val Pro Ile Arg Lys Ile His Ala Leu Thr Ile Thr Trp  
 500 505 510  
 Ala Leu Pro Pro Gln Gln Gln His Tyr Arg Val Lys Pro Leu His Tyr  
 515 520 525  
 Ile Ser Trp Leu Val Gly His Glu Gly Lys Gly Ser Ile Leu Ser Phe  
 530 535 540  
 Leu Arg Lys Lys Cys Trp Ala Leu Ala Leu Phe Gly Gly Asn Gly Glu  
 545 550 555 560  
 Thr Gly Phe Glu Gln Asn Ser Thr Tyr Ser Val Phe Ser Ile Ser Ile  
 565 570 575  
 Thr Leu Thr Asp Glu Gly Tyr Glu His Phe Tyr Glu Val Ala Tyr Thr  
 580 585 590  
 Val Phe Gln Tyr Leu Lys Met Leu Gln Lys Leu Gly Pro Glu Lys Arg  
 595 600 605  
 Ile Phe Glu Glu Ile Arg Lys Ile Glu Asp Asn Glu Phe His Tyr Gln  
 610 615 620  
 Glu Gln Thr Asp Pro Val Glu Tyr Val Glu Asn Met Cys Glu Asn Met  
 625 630 635 640  
 Gln Leu Tyr Pro Leu Gln Asp Ile Leu Thr Gly Asp Gln Leu Leu Phe  
 645 650 655  
 Glu Tyr Lys Pro Glu Val Ile Gly Glu Ala Leu Asn Gln Leu Val Pro

660										665										670																									
Gln	Lys	Ala	Asn	Leu	Val	Leu	Leu	Ser	Gly	Ala	Asn	Glu	Gly	Lys	Cys																														
		675						680							685																														
Asp	Leu	Lys	Glu	Lys	Trp	Phe	Gly	Thr	Gln	Tyr	Ser	Ile	Glu	Asp	Ile																														
		690						695							700																														
Glu	Asn	Ser	Trp	Ala	Glu	Leu	Trp	Asn	Ser	Asn	Phe	Glu	Leu	Asn	Pro																														
		705						710							720																														
Asp	Leu	His	Leu	Pro	Ala	Glu	Asn	Lys	Tyr	Ile	Ala	Thr	Asp	Phe	Thr																														
					725					730					735																														
Leu	Lys	Ala	Phe	Asp	Cys	Pro	Glu	Thr	Glu	Tyr	Pro	Val	Lys	Ile	Val																														
					740										750																														
Asn	Thr	Pro	Gln	Gly	Cys	Leu	Trp	Tyr	Lys	Lys	Asp	Asn	Lys	Phe	Lys																														
															765																														
Ile	Pro	Lys	Ala	Tyr	Ile	Arg	Phe	His	Leu	Ile	Ser	Pro	Leu	Ile	Gln																														
															770																														
Lys	Ser	Ala	Ala	Asn	Val	Val	Leu	Phe	Asp	Ile	Phe	Val	Asn	Ile	Leu																														
															785																														
Thr	His	Asn	Leu	Ala	Glu	Pro	Ala	Tyr	Glu	Ala	Asp	Val	Ala	Gln	Leu																														
															805																														
Glu	Tyr	Lys	Leu	Val	Ala	Gly	Glu	His	Gly	Leu	Ile	Ile	Arg	Val	Lys																														
															820																														
Gly	Phe	Asn	His	Lys	Leu	Pro	Leu	Leu	Phe	Gln	Leu	Ile	Ile	Asp	Tyr																														
															835																														
Leu	Ala	Glu	Phe	Asn	Ser	Thr	Pro	Ala	Val	Phe	Thr	Met	Ile	Thr	Glu																														
															850																														
Gln	Leu	Lys	Lys	Thr	Tyr	Phe	Asn	Ile	Leu	Ile	Lys	Pro	Glu	Thr	Leu																														
															865																														
Ala	Lys	Asp	Val	Arg	Leu	Leu	Ile	Leu	Glu	Tyr	Ala	Arg	Trp	Ser	Met																														
															885																														
Ile	Asp	Lys	Tyr	Gln	Ala	Leu	Met	Asp	Gly	Leu	Ser	Leu	Glu	Ser	Leu																														
															900																														
Leu	Ser	Phe	Val	Lys	Glu	Phe	Lys	Ser	Gln	Leu	Phe	Val	Glu	Gly	Leu																														
															915																														
Val	Gln	Gly	Asn	Val	Thr	Ser	Thr	Glu	Ser	Met	Asp	Phe	Leu	Lys	Tyr																														
															930																														
Val	Val	Asp	Lys	Leu	Asn	Phe	Lys	Pro	Leu	Glu	Gln	Glu	Met	Pro	Val																														
															945																														
Gln	Phe	Gln	Val	Val	Glu	Leu	Pro	Ser	Gly	His	His	Leu	Cys	Lys	Val																														
															965																														
Lys	Ala	Leu	Asn	Lys	Gly	Asp	Ala	Asn	Ser	Glu	Val	Thr	Val	Tyr	Tyr																														
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Gln Val Arg Tyr Gln Glu Ser Lys Arg Ile Tyr Ala Tyr Gly Ala Ala  
 995 1000 1005

Cys Asp Ala His Gly Arg Thr Leu Phe  
 1010 1015

<210> 109  
 <211> 862  
 <212> PRT  
 <213> Homo sapiens

<400> 109  
 Trp Ala Gln Phe Phe Ile His Pro Leu Met Ile Arg Asp Ala Ile Asp  
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Arg Glu Val Glu Ala Val Asp Ser Glu Tyr Gln Leu Ala Arg Pro Ser  
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Asp Ala Asn Arg Lys Glu Met Leu Phe Gly Ser Leu Ala Arg Pro Gly  
 35 40 45

His Pro Met Gly Lys Phe Phe Trp Gly Asn Ala Glu Thr Leu Lys His  
 50 55 60

Glu Pro Arg Lys Asn Asn Ile Asp Thr His Ala Arg Leu Arg Glu Phe  
 65 70 75 80

Trp Met Arg Tyr Tyr Ser Ser His Tyr Met Thr Leu Val Val Gln Ser  
 85 90 95

Lys Glu Thr Leu Asp Thr Leu Glu Lys Trp Val Thr Glu Ile Phe Ser  
 100 105 110

Gln Ile Pro Asn Asn Gly Leu Pro Arg Pro Asn Phe Gly His Leu Thr  
 115 120 125

Asp Pro Phe Asp Thr Pro Ala Phe Asn Lys Leu Tyr Arg Val Val Pro  
 130 135 140

Ile Arg Lys Ile His Ala Leu Thr Ile Thr Trp Ala Leu Pro Pro Gln  
 145 150 155 160

Gln Gln His Tyr Arg Val Lys Pro Leu His Tyr Ile Ser Trp Leu Val  
 165 170 175

Gly His Glu Gly Lys Gly Ser Ile Leu Ser Phe Leu Arg Lys Lys Cys  
 180 185 190

Trp Ala Leu Ala Leu Phe Gly Gly Asn Gly Glu Thr Gly Phe Glu Gln  
 195 200 205

Asn Ser Thr Tyr Ser Val Phe Ser Ile Ser Ile Thr Leu Thr Asp Glu  
 210 215 220

Gly Tyr Glu His Phe Tyr Glu Val Ala Tyr Thr Val Phe Gln Tyr Leu  
 225 230 235 240

Lys Met Leu Gln Lys Leu Gly Pro Glu Lys Arg Ile Phe Glu Glu Ile  
 245 250 255

Arg Lys Ile Glu Asp Asn Glu Phe His Tyr Gln Glu Gln Thr Asp Pro

260								265				270					
Val	Glu	Tyr	Val	Glu	Asn	Met	Cys	Glu	Asn	Met	Gln	Leu	Tyr	Pro	Leu		
275				280				285									
Gln	Asp	Ile	Leu	Thr	Gly	Asp	Gln	Leu	Leu	Phe	Glu	Tyr	Lys	Pro	Glu		
290				295				300									
Val	Ile	Gly	Glu	Ala	Leu	Asn	Gln	Leu	Val	Pro	Gln	Lys	Ala	Asn	Leu		
305				310				315				320					
Val	Leu	Leu	Ser	Gly	Ala	Asn	Glu	Gly	Lys	Cys	Asp	Leu	Lys	Glu	Lys		
				325				330				335					
Trp	Phe	Gly	Thr	Gln	Tyr	Ser	Ile	Glu	Asp	Ile	Glu	Asn	Ser	Trp	Ala		
				340				345				350					
Glu	Leu	Trp	Asn	Ser	Asn	Phe	Glu	Leu	Asn	Pro	Asp	Leu	His	Leu	Pro		
				355				360				365					
Ala	Glu	Asn	Lys	Tyr	Ile	Ala	Thr	Asp	Phe	Thr	Leu	Lys	Ala	Phe	Asp		
				370				375				380					
Cys	Pro	Glu	Thr	Glu	Tyr	Pro	Val	Lys	Ile	Val	Asn	Thr	Pro	Gln	Gly		
385				390				395				400					
Cys	Leu	Trp	Tyr	Lys	Lys	Asp	Asn	Lys	Phe	Lys	Ile	Pro	Lys	Ala	Tyr		
				405				410				415					
Ile	Arg	Phe	His	Leu	Ile	Ser	Pro	Leu	Ile	Gln	Lys	Ser	Ala	Ala	Asn		
				420				425				430					
Val	Val	Leu	Phe	Asp	Ile	Phe	Val	Asn	Ile	Leu	Thr	His	Asn	Leu	Ala		
				435				440				445					
Glu	Pro	Ala	Tyr	Glu	Ala	Asp	Val	Ala	Gln	Leu	Glu	Tyr	Lys	Leu	Val		
				450				455				460					
Ala	Gly	Glu	His	Gly	Leu	Ile	Ile	Arg	Val	Lys	Gly	Phe	Asn	His	Lys		
465				470				475				480					
Leu	Pro	Leu	Leu	Phe	Gln	Leu	Ile	Ile	Asp	Tyr	Leu	Ala	Glu	Phe	Asn		
				485				490				495					
Ser	Thr	Pro	Ala	Val	Phe	Thr	Met	Ile	Thr	Glu	Gln	Leu	Lys	Lys	Thr		
				500				505				510					
Tyr	Phe	Asn	Ile	Leu	Ile	Lys	Pro	Glu	Thr	Leu	Ala	Lys	Asp	Val	Arg		
				515				520				525					
Leu	Leu	Ile	Leu	Glu	Tyr	Ala	Arg	Trp	Ser	Met	Ile	Asp	Lys	Tyr	Gln		
530				535				540									
Ala	Leu	Met	Asp	Gly	Leu	Ser	Leu	Glu	Ser	Leu	Leu	Ser	Phe	Val	Lys		
545				550				555				560					
Glu	Phe	Lys	Ser	Gln	Leu	Phe	Val	Glu	Gly	Leu	Val	Gln	Gly	Asn	Val		
				565				570				575					
Thr	Ser	Thr	Glu	Ser	Met	Asp	Phe	Leu	Lys	Tyr	Val	Val	Asp	Lys	Leu		
				580				585				590					

Asn Phe Lys Pro Leu Glu Gln Glu Met Pro Val Gln Phe Gln Val Val  
 595 600 605  
 Glu Leu Pro Ser Gly His His Leu Cys Lys Val Lys Ala Leu Asn Lys  
 610 615 620  
 Gly Asp Ala Asn Ser Glu Val Thr Val Tyr Tyr Gln Ser Gly Thr Arg  
 625 630 635 640  
 Ser Leu Arg Glu Tyr Thr Leu Met Glu Leu Leu Val Met His Met Glu  
 645 650 655  
 Glu Pro Cys Phe Asp Phe Leu Arg Thr Lys Gln Thr Leu Gly Tyr His  
 660 665 670  
 Val Tyr Pro Thr Cys Arg Asn Thr Ser Gly Ile Leu Gly Phe Ser Val  
 675 680 685  
 Thr Val Gly Thr Gln Ala Thr Lys Tyr Asn Ser Glu Val Val Asp Lys  
 690 695 700  
 Lys Ile Glu Glu Phe Leu Ser Ser Phe Glu Glu Lys Ile Glu Asn Leu  
 705 710 715 720  
 Thr Glu Glu Ala Phe Asn Thr Gln Val Thr Ala Leu Ile Lys Leu Lys  
 725 730 735  
 Glu Cys Glu Asp Thr His Leu Gly Glu Glu Val Asp Arg Asn Trp Asn  
 740 745 750  
 Glu Val Val Thr Gln Gln Tyr Leu Phe Asp Arg Leu Ala His Glu Ile  
 755 760 765  
 Glu Ala Leu Lys Ser Phe Ser Lys Ser Asp Leu Val Asn Trp Phe Lys  
 770 775 780  
 Ala His Arg Gly Pro Gly Ser Lys Met Leu Ser Val His Val Val Gly  
 785 790 795 800  
 Tyr Gly Lys Tyr Glu Leu Glu Glu Asp Gly Thr Pro Ser Ser Glu Asp  
 805 810 815  
 Ser Asn Ser Ser Cys Glu Val Met Gln Leu Thr Tyr Leu Pro Thr Ser  
 820 825 830  
 Pro Leu Leu Ala Asp Cys Ile Ile Pro Ile Thr Asp Ile Arg Ala Phe  
 835 840 845  
 Thr Thr Thr Leu Asn Leu Leu Pro Tyr His Lys Ile Val Lys  
 850 855 860

<210> 110  
 <211> 1077  
 <212> PRT  
 <213> Drosophila melanogaster

<400> 110  
 Met Thr Asp Gln Val Lys Tyr Leu Asp Ile Pro Asp Lys Ser Glu Thr  
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 Asp Lys Lys Leu Tyr Lys Thr Leu Leu Leu Gly Asn Gly Leu His Ala

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Leu	Ile	Val	Ser	Asp	Pro	Ser	Pro	Met	Pro	His	Asp	Gly	Phe	Thr	Thr															
		35						40				45																		
Ser	Glu	Ser	Ser	Ser	Ser	Lys	Ser	Thr	Val	Ser	Thr	Ser	Ser	Ser	Ile															
	50					55						60																		
Ile	Ser	Arg	Ser	Glu	Ser	Thr	Ser	Ser	Thr	Ser	Thr	Asp	Ser	Glu	Ser															
	65					70					75				80															
Ser	Glu	Glu	Ser	Ser	Ser	Glu	Glu	Gly	Asp	Glu	Lys	Leu	Ala	Ala	Cys															
				85					90					95																
Ala	Leu	Leu	Ile	Asp	Tyr	Gly	Ser	Phe	Ala	Glu	Pro	Thr	Lys	Tyr	Gln															
			100					105						110																
Gly	Leu	Ala	His	Phe	Leu	Glu	His	Met	Ile	Phe	Met	Gly	Ser	Glu	Lys															
		115					120					125																		
Tyr	Pro	Lys	Glu	Asn	Ile	Phe	Asp	Ala	His	Ile	Lys	Lys	Cys	Gly	Gly															
	130					135					140																			
Phe	Ala	Asn	Ala	Asn	Thr	Asp	Cys	Glu	Asp	Thr	Leu	Phe	Tyr	Phe	Glu															
	145				150					155					160															
Val	Ala	Glu	Lys	His	Leu	Asp	Ser	Ser	Leu	Asp	Tyr	Phe	Thr	Ala	Leu															
				165					170					175																
Met	Lys	Ala	Pro	Leu	Met	Lys	Gln	Glu	Ala	Met	Gln	Arg	Glu	Arg	Ser															
			180					185					190																	
Ala	Val	Asp	Ser	Glu	Phe	Gln	Gln	Ile	Leu	Gln	Asp	Asp	Glu	Thr	Arg															
		195					200					205																		
Arg	Asp	Gln	Leu	Leu	Ala	Ser	Leu	Ala	Thr	Lys	Gly	Phe	Pro	His	Gly															
	210					215					220																			
Thr	Phe	Ala	Trp	Gly	Asn	Met	Lys	Ser	Leu	Lys	Glu	Asn	Val	Asp	Asp															
	225				230					235					240															
Ala	Glu	Leu	His	Lys	Ile	Leu	His	Glu	Ile	Arg	Lys	Glu	His	Tyr	Gly															
			245					250						255																
Ala	Asn	Arg	Met	Tyr	Val	Cys	Leu	Gln	Ala	Arg	Leu	Pro	Ile	Asp	Glu															
			260					265					270																	
Leu	Glu	Ser	Leu	Val	Val	Arg	His	Phe	Ser	Gly	Ile	Pro	His	Asn	Glu															
		275					280					285																		
Val	Lys	Ala	Pro	Asp	Leu	Ser	Ser	Phe	Asn	Tyr	Lys	Asp	Ala	Phe	Lys															
	290					295					300																			
Ala	Glu	Phe	His	Glu	Gln	Val	Phe	Phe	Val	Lys	Pro	Val	Glu	Asn	Glu															
	305				310					315					320															
Thr	Lys	Leu	Glu	Leu	Thr	Trp	Val	Leu	Pro	Asn	Val	Arg	Gln	Tyr	Tyr															
			325					330					335																	
Arg	Ser	Lys	Pro	Asp	Gln	Phe	Leu	Ser	Tyr	Leu	Leu	Gly	Tyr	Glu	Gly															
			340					345					350																	

Arg Gly Ser Leu Cys Ala Tyr Leu Arg Arg Arg Leu Trp Ala Leu Gln  
 355 360 365  
 Leu Ile Ala Gly Ile Asp Glu Asn Gly Phe Asp Met Asn Ser Met Tyr  
 370 375 380  
 Ser Leu Phe Asn Ile Cys Ile Tyr Leu Thr Asp Glu Gly Phe Lys Asn  
 385 390 395 400  
 Leu Asp Glu Val Leu Ala Ala Thr Phe Ala Tyr Val Lys Leu Phe Ala  
 405 410 415  
 Asn Cys Gly Ser Met Lys Asp Val Tyr Glu Glu Gln Gln Arg Asn Glu  
 420 425 430  
 Glu Thr Gly Phe Arg Phe His Ala Gln Arg Pro Ala Phe Asp Asn Val  
 435 440 445  
 Gln Glu Leu Val Leu Asn Leu Lys Tyr Phe Pro Pro Lys Asp Ile Leu  
 450 455 460  
 Thr Gly Lys Glu Leu Tyr Tyr Glu Tyr Asn Glu Glu His Leu Lys Glu  
 465 470 475 480  
 Leu Ile Ser His Leu Asn Glu Met Lys Phe Asn Leu Met Val Thr Ser  
 485 490 495  
 Arg Arg Lys Tyr Asp Asp Ile Ser Ala Tyr Asp Lys Thr Glu Glu Trp  
 500 505 510  
 Phe Gly Thr Glu Tyr Ala Thr Ile Pro Met Pro Glu Lys Trp Arg Lys  
 515 520 525  
 Leu Trp Glu Asp Ser Val Pro Leu Pro Glu Leu Phe Leu Pro Glu Ser  
 530 535 540  
 Asn Lys Tyr Val Thr Asp Asp Phe Thr Leu His Trp His Ser Met Gly  
 545 550 555 560  
 Arg Pro Glu Val Pro Asp Ser Pro Lys Leu Leu Ile Lys Thr Asp Thr  
 565 570 575  
 Cys Glu Leu Trp Phe Arg Gln Asp Asp Lys Phe Asp Leu Pro Glu Ala  
 580 585 590  
 His Met Ala Phe Tyr Phe Ile Ser Pro Met Gln Arg Gln Asn Ala Lys  
 595 600 605  
 Asn Asp Ala Met Cys Ser Leu Tyr Glu Glu Met Val Arg Phe His Val  
 610 615 620  
 Cys Glu Glu Leu Tyr Pro Ala Ile Ser Ala Gly Leu Ser Tyr Ser Leu  
 625 630 635 640  
 Ser Thr Ile Glu Lys Gly Leu Leu Leu Lys Val Cys Gly Tyr Asn Glu  
 645 650 655  
 Lys Leu His Leu Ile Val Glu Ala Ile Ala Glu Gly Met Leu Asn Val  
 660 665 670  
 Ala Glu Thr Leu Asp Glu Asn Met Leu Ser Ala Phe Val Lys Asn Gln  
 675 680 685

Arg Lys Ala Phe Phe Asn Ala Leu Ile Lys Pro Lys Ala Leu Asn Arg  
 690 695 700  
 Asp Ile Arg Leu Cys Val Leu Glu Arg Ile Arg Trp Leu Met Ile Asn  
 705 710 715 720  
 Lys Tyr Lys Cys Leu Ser Ser Val Ile Leu Glu Asp Met Arg Glu Phe  
 725 730 735  
 Ala His Gln Phe Pro Lys Glu Leu Tyr Ile Gln Ser Leu Ile Gln Gly  
 740 745 750  
 Asn Tyr Thr Glu Glu Ser Ala His Asn Val Met Asn Ser Leu Leu Ser  
 755 760 765  
 Arg Leu Asn Cys Lys Gln Ile Arg Glu Arg Gly Arg Phe Leu Glu Asp  
 770 775 780  
 Ile Thr Val Lys Leu Pro Val Gly Thr Ser Ile Ile Arg Cys His Ala  
 785 790 795 800  
 Leu Asn Val Gln Asp Thr Asn Thr Val Ile Thr Asn Phe Tyr Gln Ile  
 805 810 815  
 Gly Pro Asn Thr Val Arg Val Glu Ser Ile Leu Asp Leu Leu Met Met  
 820 825 830  
 Phe Val Asp Glu Pro Leu Phe Asp Gln Leu Arg Thr Lys Glu Gln Leu  
 835 840 845  
 Gly Tyr His Val Gly Ala Thr Val Arg Leu Asn Tyr Gly Ile Ala Gly  
 850 855 860  
 Tyr Ser Ile Met Val Asn Ser Gln Glu Thr Lys Thr Thr Ala Asp Tyr  
 865 870 875 880  
 Val Glu Gly Arg Ile Glu Val Phe Arg Ala Lys Met Leu Gln Ile Leu  
 885 890 895  
 Arg His Leu Pro Gln Asp Glu Tyr Glu His Thr Arg Asp Ser Leu Ile  
 900 905 910  
 Lys Leu Lys Leu Val Ala Asp Leu Ala Leu Ser Thr Glu Met Ser Arg  
 915 920 925  
 Asn Trp Asp Glu Ile Ile Asn Glu Ser Tyr Leu Phe Asp Arg Arg Arg  
 930 935 940  
 Arg Gln Ile Glu Val Ile Gly His Arg Pro Ala Gly Met Pro Glu Pro  
 945 950 955 960  
 Leu Cys Gly Glu Asp Thr Ala Lys Cys Ala Ser Lys Ser Asp Asp Glu  
 965 970 975  
 Ser Glu Ser Glu Asn Asp Asp Asp Asp Asp Glu Asp Glu Glu Glu Glu  
 980 985 990  
 Glu Ser Ser Glu Glu Glu Glu Glu Glu Lys Glu Lys Glu Gly Leu  
 995 1000 1005  
 Lys Gly Glu Asp Glu Asp Asp Leu Phe Tyr Ser Leu Glu Asn Lys Leu



1010	1015	1020
Asn Ile Val Phe Leu Pro Ala Lys Phe Asn Asn Ala Phe Ile Ile Thr		
1025	1030	1035 1040
Asp Ile Glu Lys Phe Lys Asp Asp Gln Tyr Val Tyr Pro Gln Gln Lys		
1045	1050	1055
Thr Gln Pro Lys Glu Glu Asp Glu Leu Ile Ser Ala His Ile Ala Asp		
1060	1065	1070
Ala Ile Arg Gln Val		
1075		
<210> 111		
<211> 638		
<212> PRT		
<213> Homo sapiens		
<400> 111		
Met Ile Leu Phe Lys Gln Ala Thr Tyr Phe Ile Ser Leu Phe Ala Thr		
1	5	10 15
Val Ser Cys Gly Cys Leu Thr Gln Leu Tyr Glu Asn Ala Phe Phe Arg		
20	25	30
Gly Gly Asp Val Ala Ser Met Tyr Thr Pro Asn Ala Gln Tyr Cys Gln		
35	40	45
Met Arg Cys Thr Phe His Pro Arg Cys Leu Leu Phe Ser Phe Leu Pro		
50	55	60
Ala Ser Ser Ile Asn Asp Met Glu Lys Arg Phe Gly Cys Phe Leu Lys		
65	70	75 80
Asp Ser Val Thr Gly Thr Leu Pro Lys Val His Arg Thr Gly Ala Val		
85	90	95
Ser Gly His Ser Leu Lys Gln Cys Gly His Gln Ile Ser Ala Cys His		
100	105	110
Arg Asp Ile Tyr Lys Gly Val Asp Met Arg Gly Val Asn Phe Asn Val		
115	120	125
Ser Lys Val Ser Ser Val Glu Glu Cys Gln Lys Arg Cys Thr Asn Asn		
130	135	140
Ile Arg Cys Gln Phe Phe Ser Tyr Ala Thr Gln Thr Phe His Lys Ala		
145	150	155 160
Glu Tyr Arg Asn Asn Cys Leu Leu Lys Tyr Ser Pro Gly Gly Thr Pro		
165	170	175
Thr Ala Ile Lys Val Leu Ser Asn Val Glu Ser Gly Phe Ser Leu Lys		
180	185	190
Pro Cys Ala Leu Ser Glu Ile Gly Cys His Met Asn Ile Phe Gln His		
195	200	205
Leu Ala Phe Ser Asp Val Asp Val Ala Arg Val Leu Thr Pro Asp Ala		
210	215	220

Phe Val Cys Arg Thr Ile Cys Thr Tyr His Pro Asn Cys Leu Phe Phe  
225 230 235 240  
Thr Phe Tyr Thr Asn Val Trp Lys Ile Glu Ser Gln Arg Asn Val Cys  
245 250 255  
Leu Leu Lys Thr Ser Glu Ser Gly Thr Pro Ser Ser Ser Thr Pro Gln  
260 265 270  
Glu Asn Thr Ile Ser Gly Tyr Ser Leu Leu Thr Cys Lys Arg Thr Leu  
275 280 285  
Pro Glu Pro Cys His Ser Lys Ile Tyr Pro Gly Val Asp Phe Gly Gly  
290 295 300  
Glu Glu Leu Asn Val Thr Phe Val Lys Gly Val Asn Val Cys Gln Glu  
305 310 315 320  
Thr Cys Thr Lys Met Ile Arg Cys Gln Phe Phe Thr Tyr Ser Leu Leu  
325 330 335  
Pro Glu Asp Cys Lys Glu Glu Lys Cys Lys Cys Phe Leu Arg Leu Ser  
340 345 350  
Met Asp Gly Ser Pro Thr Arg Ile Ala Tyr Gly Thr Gln Gly Ser Ser  
355 360 365  
Gly Tyr Ser Leu Arg Leu Cys Asn Thr Gly Asp Asn Ser Val Cys Thr  
370 375 380  
Thr Lys Thr Ser Thr Arg Ile Val Gly Gly Thr Asn Ser Ser Trp Gly  
385 390 395 400  
Glu Trp Pro Trp Gln Val Ser Leu Gln Val Lys Leu Thr Ala Gln Arg  
405 410 415  
His Leu Cys Gly Gly Ser Leu Ile Gly His Gln Trp Val Leu Thr Ala  
420 425 430  
Ala His Cys Phe Asp Gly Leu Pro Leu Gln Asp Val Trp Arg Ile Tyr  
435 440 445  
Ser Gly Ile Leu Asn Leu Ser Asp Ile Thr Lys Asp Thr Pro Phe Ser  
450 455 460  
Gln Ile Lys Glu Ile Ile Ile His Gln Asn Tyr Lys Val Ser Glu Gly  
465 470 475 480  
Asn His Asp Ile Ala Leu Ile Lys Leu Gln Ala Pro Leu Asn Tyr Thr  
485 490 495  
Glu Phe Gln Lys Pro Ile Cys Leu Pro Ser Lys Gly Asp Thr Ser Thr  
500 505 510  
Ile Tyr Thr Asn Cys Trp Val Thr Gly Trp Gly Phe Ser Lys Glu Lys  
515 520 525  
Gly Glu Ile Gln Asn Ile Leu Gln Lys Val Asn Ile Pro Leu Val Thr  
530 535 540  
Asn Glu Glu Cys Gln Lys Arg Tyr Gln Asp Tyr Lys Ile Thr Gln Arg

545		550		555		560									
Met	Val	Cys	Ala	Gly	Tyr	Lys	Glu	Gly	Gly	Lys	Asp	Ala	Cys	Lys	Gly
				565					570					575	
Asp	Ser	Gly	Gly	Pro	Leu	Val	Cys	Lys	His	Asn	Gly	Met	Trp	Arg	Leu
			580					585					590		
Val	Gly	Ile	Thr	Ser	Trp	Gly	Glu	Gly	Cys	Ala	Arg	Arg	Glu	Gln	Pro
		595					600					605			
Gly	Val	Tyr	Thr	Lys	Val	Ala	Glu	Tyr	Met	Asp	Trp	Ile	Leu	Glu	Lys
	610					615					620				
Thr	Gln	Ser	Ser	Asp	Gly	Lys	Ala	Gln	Met	Gln	Ser	Pro	Ala		
625					630					635					

<210> 112

<211> 638

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (160)..(163)

<223> Where Xaa is any amino acid as defined in the  
specification

<400> 112

Met	Ile	Leu	Phe	Lys	Gln	Ala	Thr	Tyr	Phe	Ile	Ser	Leu	Phe	Ala	Thr
1				5					10					15	
Val	Ser	Cys	Gly	Cys	Leu	Thr	Gln	Leu	Tyr	Glu	Asn	Ala	Phe	Phe	Arg
			20					25					30		
Gly	Gly	Asp	Val	Ala	Ser	Met	Tyr	Thr	Pro	Asn	Ala	Gln	Tyr	Cys	Gln
		35					40					45			
Met	Arg	Cys	Thr	Phe	His	Pro	Arg	Cys	Leu	Leu	Phe	Ser	Phe	Leu	Pro
	50					55					60				
Ala	Ser	Ser	Ile	Asn	Asp	Met	Glu	Lys	Arg	Phe	Gly	Cys	Phe	Leu	Lys
	65				70					75				80	
Asp	Ser	Val	Thr	Gly	Thr	Leu	Pro	Lys	Val	His	Arg	Thr	Gly	Ala	Val
				85					90					95	
Ser	Gly	His	Ser	Leu	Lys	Gln	Cys	Gly	His	Gln	Ile	Ser	Ala	Cys	His
			100					105					110		
Arg	Asp	Ile	Tyr	Lys	Gly	Val	Asp	Met	Arg	Gly	Val	Asn	Phe	Asn	Val
		115					120					125			
Ser	Lys	Val	Ser	Arg	Val	Glu	Glu	Cys	Gln	Lys	Arg	Cys	Thr	Asn	Asn
	130					135					140				
Ile	Arg	Cys	Gln	Val	Phe	Ser	Tyr	Ala	Pro	His	Thr	Phe	His	Lys	Xaa
145				150						155				160	
Xaa	Xaa	Xaa	Asn	Asn	Cys	Leu	Leu	Lys	Tyr	Ser	Pro	Gly	Gly	Thr	Pro
			165						170					175	

Thr Ala Ile Lys Val Leu Ser Asn Val Glu Ser Gly Phe Ser Leu Lys  
 180 185 190  
 Pro Cys Ala Leu Ser Glu Ile Gly Cys His Met Asn Ile Phe Gln His  
 195 200 205  
 Leu Ala Phe Ser Asp Val Asp Val Ala Arg Val Leu Thr Pro Asp Ala  
 210 215 220  
 Phe Val Cys Arg Thr Ile Cys Thr Tyr His Pro Asn Cys Leu Phe Phe  
 225 230 235 240  
 Thr Phe Tyr Thr Asn Val Trp Lys Ile Glu Ser Gln Arg Asn Val Cys  
 245 250 255  
 Leu Leu Lys Thr Ser Glu Ser Gly Thr Pro Ser Ser Ser Thr Pro Gln  
 260 265 270  
 Glu Asn Thr Ile Ser Gly Tyr Ser Leu Leu Thr Cys Lys Arg Thr Leu  
 275 280 285  
 Pro Glu Pro Cys His Ser Lys Ile Tyr Pro Gly Val Asp Phe Gly Gly  
 290 295 300  
 Glu Glu Leu Asn Val Thr Phe Val Lys Gly Val Asn Val Cys Gln Glu  
 305 310 315 320  
 Thr Cys Thr Lys Met Ile Arg Cys Gln Phe Phe Thr Tyr Ser Leu Leu  
 325 330 335  
 Pro Glu Asp Cys Lys Glu Glu Lys Cys Lys Cys Phe Leu Arg Leu Ser  
 340 345 350  
 Met Asp Gly Ser Pro Thr Arg Ile Ala Tyr Gly Thr Gln Gly Ser Ser  
 355 360 365  
 Gly Tyr Ser Leu Arg Leu Cys Asn Thr Gly Asp Asn Ser Val Cys Thr  
 370 375 380  
 Thr Lys Thr Ser Thr Arg Ile Val Gly Gly Thr Asn Ser Ser Trp Gly  
 385 390 395 400  
 Glu Trp Pro Trp Gln Val Ser Leu Gln Val Lys Leu Thr Ala Gln Arg  
 405 410 415  
 His Leu Cys Gly Gly Ser Leu Ile Gly His Gln Trp Val Leu Thr Ala  
 420 425 430  
 Ala His Cys Phe Asp Gly Leu Pro Leu Gln Asp Val Trp Arg Ile Tyr  
 435 440 445  
 Ser Gly Ile Leu Asn Leu Ser Asp Ile Thr Lys Asp Thr Pro Phe Ser  
 450 455 460  
 Gln Ile Lys Glu Ile Ile Ile His Gln Asn Tyr Lys Val Ser Glu Gly  
 465 470 475 480  
 Asn His Asp Ile Ala Leu Ile Lys Leu Gln Ala Pro Leu Asn Tyr Thr  
 485 490 495  
 Glu Phe Gln Lys Pro Ile Cys Leu Pro Ser Lys Gly Asp Thr Ser Thr



Ala Thr Gln Ala Phe Asn Asn Ala Glu Tyr Arg Asn Asn Cys Leu Leu  
 165 170 175  
 Lys His Ser Pro Gly Gly Thr Pro Thr Ser Ile Lys Val Leu Ala Asn  
 180 185 190  
 Val Glu Ser Gly Phe Ser Leu Lys Pro Cys Ala Asp Ser Glu Ile Gly  
 195 200 205  
 Cys His Met Asp Ile Phe Gln His Leu Ala Phe Ser Asp Val Asp Val  
 210 215 220  
 Ala Arg Val Ile Ala Pro Asp Ala Phe Val Cys Arg Thr Ile Cys Thr  
 225 230 235 240  
 Tyr His Pro Asn Cys Leu Phe Phe Thr Phe Tyr Thr Asn Ala Trp Lys  
 245 250 255  
 Ile Glu Ser Gln Arg Asn Val Cys Phe Leu Lys Thr Ser His Ser Gly  
 260 265 270  
 Thr Pro Ser Phe Pro Thr Pro Gln Glu Asn Ala Ile Ser Gly Tyr Ser  
 275 280 285  
 Leu Leu Thr Cys Lys Gln Thr Leu Pro Glu Pro Cys His Ser Lys Ile  
 290 295 300  
 Tyr Ser Glu Val Asp Phe Glu Gly Glu Glu Leu Asn Val Thr Phe Val  
 305 310 315 320  
 Gln Gly Ala Asn Leu Cys Gln Glu Thr Cys Thr Lys Thr Ile Arg Cys  
 325 330 335  
 Gln Phe Phe Thr Tyr Ser Leu His Pro Glu Asp Cys Arg Gly Glu Lys  
 340 345 350  
 Cys Lys Cys Ser Leu Arg Leu Ser Ser Asp Gly Ser Pro Thr Lys Ile  
 355 360 365  
 Thr His Gly Met Arg Ala Ser Ser Gly Tyr Ser Leu Arg Leu Cys Arg  
 370 375 380  
 Ser Gly Asp His Ser Ala Cys Ala Thr Lys Ala Asn Thr Arg Ile Val  
 385 390 395 400  
 Gly Gly Thr Asp Ser Phe Leu Gly Glu Trp Pro Trp Gln Val Ser Leu  
 405 410 415  
 Gln Ala Lys Leu Arg Ala Gln Asn His Leu Cys Gly Gly Ser Ile Ile  
 420 425 430  
 Gly His Gln Trp Val Leu Thr Ala Ala His Cys Phe Asp Gly Leu Ser  
 435 440 445  
 Leu Pro Asp Ile Trp Arg Ile Tyr Gly Gly Ile Leu Asn Ile Ser Glu  
 450 455 460  
 Ile Thr Lys Glu Thr Pro Phe Ser Gln Val Lys Glu Ile Ile Ile His  
 465 470 475 480  
 Gln Asn Tyr Lys Ile Leu Glu Ser Gly His Asp Ile Ala Leu Leu Lys



Ser Lys Thr Asp Asn Ile Glu Glu Cys Gln Lys Leu Cys Thr Asn Asn  
 130 135 140  
 Phe His Cys Gln Phe Phe Thr Tyr Ala Thr Ser Ala Phe Tyr Arg Pro  
 145 150 155 160  
 Glu Tyr Arg Lys Lys Cys Leu Leu Lys His Ser Ala Ser Gly Thr Pro  
 165 170 175  
 Thr Ser Ile Lys Ser Ala Asp Asn Leu Val Ser Gly Phe Ser Leu Lys  
 180 185 190  
 Ser Cys Ala Leu Ser Glu Ile Gly Cys Pro Met Asp Ile Phe Gln His  
 195 200 205  
 Ser Ala Phe Ala Asp Leu Asn Val Ser Gln Val Ile Thr Pro Asp Ala  
 210 215 220  
 Phe Val Cys Arg Thr Ile Cys Thr Phe His Pro Asn Cys Leu Phe Phe  
 225 230 235 240  
 Thr Phe Tyr Thr Asn Glu Trp Glu Thr Glu Ser Gln Arg Asn Val Cys  
 245 250 255  
 Phe Leu Lys Thr Ser Lys Ser Gly Arg Pro Ser Pro Pro Ile Pro Gln  
 260 265 270  
 Glu Asn Ala Ile Ser Gly Tyr Ser Leu Leu Thr Cys Arg Lys Thr Arg  
 275 280 285  
 Pro Glu Pro Cys His Ser Lys Ile Tyr Ser Gly Val Asp Phe Glu Gly  
 290 295 300  
 Glu Glu Leu Asn Val Thr Phe Val Gln Gly Ala Asp Val Cys Gln Glu  
 305 310 315 320  
 Thr Cys Thr Lys Thr Ile Arg Cys Gln Phe Phe Ile Tyr Ser Leu Leu  
 325 330 335  
 Pro Gln Asp Cys Lys Glu Glu Gly Cys Lys Cys Ser Leu Arg Leu Ser  
 340 345 350  
 Thr Asp Gly Ser Pro Thr Arg Ile Thr Tyr Gly Met Gln Gly Ser Ser  
 355 360 365  
 Gly Tyr Ser Leu Arg Leu Cys Lys Leu Val Asp Ser Pro Asp Cys Thr  
 370 375 380  
 Thr Lys Ile Asn Ala Arg Ile Val Gly Gly Thr Asn Ala Ser Leu Gly  
 385 390 395 400  
 Glu Trp Pro Trp Gln Val Ser Leu Gln Val Lys Leu Val Ser Gln Thr  
 405 410 415  
 His Leu Cys Gly Gly Ser Ile Ile Gly Arg Gln Trp Val Leu Thr Ala  
 420 425 430  
 Ala His Cys Phe Asp Gly Ile Pro Tyr Pro Asp Val Trp Arg Ile Tyr  
 435 440 445  
 Gly Gly Ile Leu Ser Leu Ser Glu Ile Thr Lys Glu Thr Pro Ser Ser



450		455		460
Arg Ile Lys Glu Leu Ile Ile His Gln Glu Tyr Lys Val Ser Glu Gly				
465		470		475 480
Asn Tyr Asp Ile Ala Leu Ile Lys Leu Gln Thr Pro Leu Asn Tyr Thr				
	485		490	495
Glu Phe Gln Lys Pro Ile Cys Leu Pro Ser Lys Ala Asp Thr Asn Thr				
	500		505	510
Ile Tyr Thr Asn Cys Trp Val Thr Gly Trp Gly Tyr Thr Lys Glu Gln				
	515		520	525
Gly Glu Thr Gln Asn Ile Leu Gln Lys Ala Thr Ile Pro Leu Val Pro				
	530		535	540
Asn Glu Glu Cys Gln Lys Lys Tyr Arg Asp Tyr Val Ile Asn Lys Gln				
545		550		555 560
Met Ile Cys Ala Gly Tyr Lys Glu Gly Gly Thr Asp Ala Cys Lys Gly				
	565		570	575
Asp Ser Gly Gly Pro Leu Val Cys Lys His Ser Gly Arg Trp Gln Leu				
	580		585	590
Val Gly Ile Thr Ser Trp Gly Glu Gly Cys Gly Arg Lys Asp Gln Pro				
	595		600	605
Gly Val Tyr Thr Lys Val Ser Glu Tyr Met Asp Trp Ile Leu Glu Lys				
610		615		620
Thr Gln Ser Ser Asp Val Arg Ala Leu Glu Thr Ser Ser Ala				
625		630		635

<210> 115  
 <211> 638  
 <212> PPT  
 <213> Rattus norvegicus

<400> 115
Met Ile Leu Phe Lys Gln Val Gly Tyr Phe Val Ser Leu Phe Ala Thr
1 5 10 15
Val Ser Cys Gly Cys Leu Ser Gln Leu Tyr Ala Asn Thr Phe Phe Arg
20 25 30
Gly Gly Asp Leu Ala Ala Ile Tyr Thr Pro Asp Ala Gln His Cys Gln
35 40 45
Lys Met Cys Thr Phe His Pro Arg Cys Leu Leu Phe Ser Phe Leu Ala
50 55 60
Val Ser Pro Thr Lys Glu Thr Asp Lys Arg Phe Gly Cys Phe Met Lys
65 70 75 80
Glu Ser Ile Thr Gly Thr Leu Pro Arg Ile His Arg Thr Gly Ala Ile
85 90 95
Ser Gly His Ser Leu Lys Gln Cys Gly His Gln Leu Ser Ala Cys His
100 105 110

Gln Asp Ile Tyr Glu Gly Leu Asp Met Arg Gly Ser Asn Phe Asn Ile  
 115 120 125  
 Ser Lys Thr Asp Ser Ile Glu Glu Cys Gln Lys Leu Cys Thr Asn Asn  
 130 135 140  
 Ile His Cys Gln Phe Phe Thr Tyr Ala Thr Lys Ala Phe His Arg Pro  
 145 150 155 160  
 Glu Tyr Arg Lys Ser Cys Leu Leu Lys Arg Ser Ser Ser Gly Thr Pro  
 165 170 175  
 Thr Ser Ile Lys Pro Val Asp Asn Leu Val Ser Gly Phe Ser Leu Lys  
 180 185 190  
 Ser Cys Ala Leu Ser Glu Ile Gly Cys Pro Met Asp Ile Phe Gln His  
 195 200 205  
 Phe Ala Phe Ala Asp Leu Asn Val Ser Gln Val Val Thr Pro Asp Ala  
 210 215 220  
 Phe Val Cys Arg Thr Val Cys Thr Phe His Pro Asn Cys Leu Phe Phe  
 225 230 235 240  
 Thr Phe Tyr Thr Asn Glu Trp Glu Thr Glu Ser Gln Arg Asn Val Cys  
 245 250 255  
 Phe Leu Lys Thr Ser Lys Ser Gly Arg Pro Ser Pro Pro Ile Ile Gln  
 260 265 270  
 Glu Asn Ala Val Ser Gly Tyr Ser Leu Phe Thr Cys Arg Lys Ala Arg  
 275 280 285  
 Pro Glu Pro Cys His Phe Lys Ile Tyr Ser Gly Val Ala Phe Glu Gly  
 290 295 300  
 Glu Glu Leu Asn Ala Thr Phe Val Gln Gly Ala Asp Ala Cys Gln Glu  
 305 310 315 320  
 Thr Cys Thr Lys Thr Ile Arg Cys Gln Phe Phe Thr Tyr Ser Leu Leu  
 325 330 335  
 Pro Gln Asp Cys Lys Ala Glu Gly Cys Lys Cys Ser Leu Arg Leu Ser  
 340 345 350  
 Thr Asp Gly Ser Pro Thr Arg Ile Thr Tyr Glu Ala Gln Gly Ser Ser  
 355 360 365  
 Gly Tyr Ser Leu Arg Leu Cys Lys Val Val Glu Ser Ser Asp Cys Thr  
 370 375 380  
 Thr Lys Ile Asn Ala Arg Ile Val Gly Gly Thr Asn Ser Ser Leu Gly  
 385 390 395 400  
 Glu Trp Pro Trp Gln Val Ser Leu Gln Val Lys Leu Val Ser Gln Asn  
 405 410 415  
 His Met Cys Gly Gly Ser Ile Ile Gly Arg Gln Trp Ile Leu Thr Ala  
 420 425 430  
 Ala His Cys Phe Asp Gly Ile Pro Tyr Pro Asp Val Trp Arg Ile Tyr

435	440	445
Gly Gly Ile Leu Asn Leu Ser Glu Ile Thr Asn Lys Thr Pro Phe Ser		
450	455	460
Ser Ile Lys Glu Leu Ile Ile His Gln Lys Tyr Lys Met Ser Glu Gly		
465	470	475
Ser Tyr Asp Ile Ala Leu Ile Lys Leu Gln Thr Pro Leu Asn Tyr Thr		
485	490	495
Glu Phe Gln Lys Pro Ile Cys Leu Pro Ser Lys Ala Asp Thr Asn Thr		
500	505	510
Ile Tyr Thr Asn Cys Trp Val Thr Gly Trp Gly Tyr Thr Lys Glu Arg		
515	520	525
Gly Glu Thr Gln Asn Ile Leu Gln Lys Ala Thr Ile Pro Leu Val Pro		
530	535	540
Asn Glu Glu Cys Gln Lys Lys Tyr Arg Asp Tyr Val Ile Thr Lys Gln		
545	550	555
Met Ile Cys Ala Gly Tyr Lys Glu Gly Gly Ile Asp Ala Cys Lys Gly		
565	570	575
Asp Ser Gly Gly Pro Leu Val Cys Lys His Ser Gly Arg Tip Gln Leu		
580	585	590
Val Gly Ile Thr Ser Trp Gly Glu Gly Cys Ala Arg Lys Glu Gln Pro		
595	600	605
Gly Val Tyr Thr Lys Val Ala Glu Tyr Ile Asp Trp Ile Leu Glu Lys		
610	615	620
Ile Gln Ser Ser Lys Glu Arg Ala Leu Glu Thr Ser Pro Ala		
625	630	635

<210> 116

<211> 856

<212> PRT

<213> Drosophila melanogaster

<400> 116

Met Ala Asn Arg Thr Val Lys Glu Ala Lys Asn Val His Gly Thr Asn		
1	5	10
Pro Gln Tyr Leu Ile Glu Lys Ile Ile Arg Ser Arg Ile Tyr Asp Ser		
20	25	30
Lys Tyr Trp Lys Glu Gln Cys Phe Ala Leu Thr Ala Glu Leu Leu Val		
35	40	45
Asp Lys Ala Met Glu Leu Arg Phe Val Gly Gly Val Tyr Gly Gly Asn		
50	55	60
Ile Lys Pro Thr Gln Phe Leu Cys Leu Thr Leu Lys Met Leu Gln Ile		
65	70	75
Gln Pro Glu Lys Asp Ile Val Val Glu Phe Ile Lys Asn Glu Glu Phe		
85	90	95

Lys Tyr Val Arg Ala Leu Gly Ala Phe Tyr Leu Arg Leu Thr Gly Ala  
 100 105 110  
 Ala Leu Asp Cys Tyr Lys Tyr Leu Glu Pro Leu Tyr Ile Asp Asn Arg  
 115 120 125  
 Lys Leu Arg Arg Gln Asn Arg Ala Gly Gln Phe Glu Ile Val Tyr Met  
 130 135 140  
 Asp Glu Tyr Ile Asp Glu Leu Leu Arg Asn Asp Arg Val Cys Asp Ile  
 145 150 155 160  
 Ile Leu Pro Arg Ile Gln Lys Arg Ser Ile Leu Glu Glu Asn Asn Glu  
 165 170 175  
 Ile Glu Pro Lys Val Ser Val Leu Asp Glu Asp Leu Asp Asp Glu Leu  
 180 185 190  
 Pro Ser Asp Glu Glu Lys Ala Asp Glu Thr Asn Arg Pro Lys Glu Asn  
 195 200 205  
 Ser Thr Ala Val Arg Arg Pro Arg Arg Val Arg Ser Lys Ser Arg Ser  
 210 215 220  
 Arg Ser Arg Glu Arg Glu Arg Arg Ser Gly Gln Gly Asn Ser Ala Arg  
 225 230 235 240  
 Ser Arg Asp Tyr Tyr Asp Glu Leu Glu Asp Tyr Asp Arg Gln Arg Asn  
 245 250 255  
 Arg Val Arg Asn Arg Asp Thr His Asn Glu Asp Tyr Asp Arg Arg Gln  
 260 265 270  
 Asn Asn Gly Arg His Asp Arg Glu Arg Glu Arg Gln Asp Arg Asp Ser  
 275 280 285  
 Ile Arg Glu Arg Glu Arg Asp Gly Asp Arg Asp Arg Arg Asp Arg Glu  
 290 295 300  
 Arg Glu Arg Glu Arg Asp Arg Gly Arg His Asp Gln Arg Glu Arg Asp  
 305 310 315 320  
 Ser Arg Gly Glu His Trp Cys Lys Pro Asp Ala Ser Thr Ser Ser Val  
 325 330 335  
 Leu Asp Ser Glu Gln Val Gly Thr Glu Arg Asn Gly Ser Met Pro Arg  
 340 345 350  
 Ser Asp Thr Glu Ala Leu Val Ala Asp Val Glu Thr Gly Glu Asp Ser  
 355 360 365  
 Ala Pro Arg Ile Leu Asp Ala Ser Ser Ala Ala Ser Ser Glu Gln Val  
 370 375 380  
 Asp Pro Pro Pro Val Pro Pro Pro His Asp Tyr Ser Ser Tyr Arg Trp  
 385 390 395 400  
 Phe Ile Leu Glu Pro Ala Val Phe Leu Ile Phe Phe Ala Arg Asn Leu  
 405 410 415  
 Ile Gly Ala Val Tyr Gln Asn Gln Ile Leu Tyr Gln Thr Cys Ile Thr

420	425	430
Ile Glu Lys Phe Asn Ala Thr Gln Cys Glu Pro Leu Leu Gly Ile Asp 435 440 445		
Arg Gly Ser Asp Ala Asp Lys Glu Val Glu Val Ile Val Gln Thr Tyr 450 455 460		
Ser Ala Asn Ile Met Met Thr Thr Ser Leu Leu Glu Ser Ile Ile Pro 465 470 475 480		
Ala Phe Ala Ser Leu Phe Leu Gly Pro Trp Ser Asp Lys Phe Gly Arg 485 490 495		
Arg Pro Ile Leu Leu Thr Thr Phe Thr Gly Tyr Leu Thr Gly Ala Leu 500 505 510		
Ile Leu Ile Val Ile Thr Tyr Ile Thr Arg Ser Thr Asn Ile Ser Pro 515 520 525		
Trp Trp Phe Leu Leu Ser Ser Val Pro Ser Val Val Ser Gly Gly Thr 530 535 540		
Cys Ala Leu Ile Thr Gly Ile Tyr Cys Tyr Ile Ser Asp Val Ala Lys 545 550 555 560		
Glu Arg Lys Lys Ala Leu Arg Met Val Leu Asn Glu Ala Ser Leu Cys 565 570 575		
Ala Gly Ile Met Val Gly Asn Val Ala Ser Gly Tyr Ile Tyr Ala Ala 580 585 590		
Thr Asn Ala Leu Val Leu Phe Ser Ile Ala Gly Ser Leu Met Met Phe 595 600 605		
Ala Leu Met Tyr Val Leu Leu Phe Val Pro Glu Ser Leu Asn Pro Gly 610 615 620		
Asp Ile His Thr Gly Ser Arg Val Arg Glu Phe Phe Arg Phe Asp Leu 625 630 635 640		
Val Thr Asp Leu Ile Arg Thr Cys Phe Lys Arg Arg Pro Asn Phe Asp 645 650 655		
Arg Thr Ile Ile Trp Leu Thr Met Ile Ala Leu Thr Ile Ala Ile Phe 660 665 670		
Asp Met Glu Gly Glu Ser Thr Val Asn Tyr Met Phe Val Gln Asp Lys 675 680 685		
Phe Asn Trp Thr Ile Lys Asp Phe Ser Leu Phe Asn Ala Ser Arg Ile 690 695 700		
Val Ile Gln Ile Val Gly Ser Ile Val Gly Met Leu Val Leu Arg Arg 705 710 715 720		
Val Leu Lys Met Ser Ile Val Thr Met Ala Met Leu Ser Leu Ala Cys 725 730 735		
Cys Val Leu Glu Ser Thr Val Arg Ala Thr Ala Val Tyr Trp Gln Glu 740 745 750		

Leu Tyr Leu Gly Met Thr Leu Gly Met Met Arg Gly Val Met Gly Pro  
 755 760 765

Met Cys Arg Ala Ile Leu Ser His Val Ala Pro Ala Thr Glu Val Gly  
 770 775 780

Lys Ile Phe Ala Leu Thr Thr Ser Met Glu Ser Val Ser Pro Leu Gly  
 785 790 795 800

Ala Ala Pro Leu Tyr Thr Thr Val Tyr Lys Ala Thr Leu Glu Asn Tyr  
 805 810 815

Pro Gly Ala Phe Asn Phe Ile Ser Ala Ala Leu Tyr Phe Val Cys Tyr  
 820 825 830

Ile Leu Ile Ala Val Ile Phe Gly Ile Gln Lys Ser Met Gly Ser Ser  
 835 840 845

Ser Val Tyr Gln Ala Ile Gly Ser  
 850 855

<210> 117

<211> 140

<212> PRT

<213> Homo sapiens

<400> 117

Met Ala Asn Arg Thr Leu Lys Asp Ala His Ser Val Arg Gly Thr Asn  
 1 5 10 15

Pro Gln Tyr Leu Val Gly Lys Ile Ile Arg Met Arg Ile Cys Glu Ser  
 20 25 30

Lys His Trp Lys Glu Glu Cys Phe Gly Leu Met Ala Glu Leu Val Val  
 35 40 45

Asp Asn Ala Met Glu Leu Met Phe Val Gly Gly Glu Tyr Gly Gly Asn  
 50 55 60

Ile Lys Pro Thr Pro Phe Leu Cys Leu Ile Leu Lys Met Leu Gln Ile  
 65 70 75 80

Gln Ser Glu Lys Gly Ile Thr Ala Glu Phe Ile Glu Asn Glu Asp Phe  
 85 90 95

Lys Tyr Val His Met Leu Gly Ala Leu Tyr Met Arg Leu Met Gly Thr  
 100 105 110

Ala Ile Asp Cys Tyr Lys Tyr Leu Glu Pro Leu Tyr Asn Asp Tyr Arg  
 115 120 125

Lys Ile Lys Ser Gln Asn Arg Asn Gly Gly Leu Asn  
 130 135 140

<210> 118

<211> 236

<212> PRT

<213> Homo sapiens

<400> 118

Met Leu Gln Ile Gln Pro Glu Lys Asp Ile Ile Val Glu Phe Ile Lys  
 1 5 10 15  
 Asn Gly Asp Phe Lys Tyr Val Arg Met Leu Gly Ala Leu Tyr Met Arg  
 20 25 30  
 Leu Thr Gly Thr Ala Ile Asp Cys Tyr Lys Tyr Leu Glu Pro Leu Tyr  
 35 40 45  
 Asn Asp Tyr Arg Lys Ile Lys Ser Gln Asn Arg Asn Gly Glu Phe Glu  
 50 55 60  
 Leu Met His Val Asp Glu Phe Ile Asp Glu Leu Leu His Ser Glu Arg  
 65 70 75 80  
 Val Cys Asp Ile Ile Leu Pro Arg Leu Gln Lys Arg Tyr Val Leu Glu  
 85 90 95  
 Glu Ala Glu Gln Leu Glu Pro Arg Val Ser Ala Leu Glu Glu Asp Met  
 100 105 110  
 Asp Asp Val Glu Ser Ser Glu Glu Glu Glu Glu Asp Glu Lys Leu  
 115 120 125  
 Glu Arg Val Pro Ser Pro Asp His Arg Arg Arg Ser Tyr Arg Asp Leu  
 130 135 140  
 Asp Lys Pro Arg Arg Ser Pro Thr Leu Arg Tyr Arg Arg Ser Arg Ser  
 145 150 155 160  
 Arg Ser Pro Arg Arg Arg Ser Arg Ser Pro Lys Arg Arg Ser Pro Ser  
 165 170 175  
 Pro Arg Arg Glu Arg His Arg Ser Lys Ser Pro Arg Arg His Arg Ser  
 180 185 190  
 Arg Ser Arg Asp Arg Arg His Arg Ser Arg Ser Lys Ser Pro Gly His  
 195 200 205  
 His Arg Ser His Arg His Arg Ser His Ser Lys Ser Pro Glu Arg Ser  
 210 215 220  
 Lys Lys Ser His Lys Lys Ser Arg Arg Gly Asn Glu  
 225 230 235

<210> 119

<211> 320

<212> PRT

<213> *Caenorhabditis elegans*

<400> 119

Met Ala Asn Arg Thr Glu Lys Ala Ala Lys Thr Val Lys Gly Thr Asn  
 1 5 10 15  
 Pro Gln Phe Leu Val Glu Lys Ile Ile Arg Gln Arg Ile Tyr Asp Ser  
 20 25 30  
 Met Tyr Trp Lys Glu His Cys Phe Ala Leu Thr Ala Glu Leu Val Val  
 35 40 45  
 Asp Lys Gly Met Asp Leu Arg Tyr Ile Gly Gly Ile Tyr Ala Gly Asn

50					55					60					
Ile	Lys	Pro	Thr	Pro	Phe	Leu	Cys	Leu	Ala	Leu	Lys	Met	Leu	Gln	Ile
65					70					75					80
Gln	Pro	Asp	Lys	Asp	Ile	Val	Leu	Glu	Phe	Ile	Gln	Gln	Glu	Glu	Phe
				85					90					95	
Lys	Tyr	Ile	Arg	Ala	Leu	Gly	Ala	Met	Tyr	Leu	Arg	Leu	Thr	Phe	Asp
			100					105					110		
Ser	Thr	Glu	Ile	Tyr	Lys	Tyr	Leu	Glu	Pro	Leu	Tyr	Asn	Asp	Phe	Arg
		115					120					125			
Lys	Leu	Arg	Tyr	Met	Asn	Lys	Met	Gly	Arg	Phe	Glu	Ala	Ile	Tyr	Met
	130					135					140				
Asp	Asp	Phe	Ile	Asp	Asn	Leu	Leu	Arg	Glu	Asp	Arg	Tyr	Cys	Asp	Ile
145					150					155					160
Gln	Leu	Pro	Arg	Leu	Gln	Lys	Arg	Trp	Ala	Leu	Glu	Glu	Val	Asp	Met
				165					170					175	
Leu	Pro	Ser	Tyr	Lys	Ser	Leu	Leu	Asp	Gly	Asp	Leu	Val	Ala	Met	Ser
			180					185					190		
Asp	Ser	Asp	Ser	Glu	Glu	Glu	Glu	Val	Thr	Lys	Lys	Glu	Lys	Pro	Arg
		195					200					205			
Leu	Thr	Ser	Arg	Arg	Arg	Ser	Arg	Ser	Arg	Asp	Arg	Glu	Arg	Asp	Val
	210					215					220				
Gly	Asp	Arg	Arg	Glu	Val	Arg	Glu	Arg	Glu	Lys	Leu	Lys	Glu	Arg	Arg
225				230						235					240
Glu	Arg	Gly	Asp	Asp	Glu	Pro	Gly	Pro	Ser	Ser	Ser	Gly	Ser	Gly	Arg
			245						250					255	
Arg	Asp	Asp	Arg	Asp	Asp	Arg	Arg	Arg	Asp	Arg	Asp	Arg	Ser	Arg	Asp
			260					265					270		
Arg	Asp	Arg	Arg	Asp	Arg	Arg	Asp	Asp	Arg	Arg	Asp	Lys	Lys	Lys	
		275					280					285			
Glu	Ser	Arg	Arg	Gly	Gly	Ala	Asp	Asn	Asp	Glu	Glu	Arg	Glu	Ile	Ala
	290					295					300				
Glu	Ala	Asn	Ala	Leu	Arg	Ala	Lys	Leu	Gly	Leu	Ala	Pro	Leu	Glu	Arg
305				310						315					320

<210> 120

<211> 363

<212> PRT

<213> Arabidopsis thaliana

<400> 120

Met	Ala	Asn	Arg	Thr	Asp	Pro	Leu	Ala	Lys	Asn	Ile	Arg	Gly	Thr	Asn
1					5					10				15	



Pro Gln Asn Leu Val Glu Lys Ile Val Arg Thr Lys Ile Tyr Gln His  
 20 25 30  
 Thr Phe Trp Lys Glu Gln Cys Phe Gly Leu Thr Ala Glu Thr Leu Val  
 35 40 45  
 Asp Lys Ala Met Glu Leu Asp His Leu Gly Gly Thr Phe Gly Gly Ser  
 50 55 60  
 Arg Lys Pro Thr Pro Phe Leu Cys Leu Ile Leu Lys Met Leu Gln Ile  
 65 70 75 80  
 Gln Pro Glu Lys Glu Ile Val Val Glu Phe Ile Lys Asn Asp Asp Tyr  
 85 90 95  
 Lys Tyr Val Arg Ile Leu Gly Ala Phe Tyr Leu Arg Leu Thr Gly Thr  
 100 105 110  
 Asp Val Asp Val Tyr Arg Tyr Leu Glu Pro Leu Tyr Asn Asp Tyr Arg  
 115 120 125  
 Lys Val Arg Gln Lys Leu Ser Asp Gly Asn Leu Phe Leu Trp Phe Gly  
 130 135 140  
 Ile Glu Phe Ser Leu Thr His Val Asp Glu Val Ile Glu Glu Leu Leu  
 145 150 155 160  
 Thr Lys Asp Tyr Ser Cys Asp Ile Ala Met Pro Arg Leu Lys Lys Arg  
 165 170 175  
 Trp Thr Leu Glu Gln Asn Gly Leu Leu Glu Pro Arg Lys Ser Val Leu  
 180 185 190  
 Glu Asp Asp Phe Glu Glu Glu Glu Lys Glu Glu Asn Glu Gly Ile  
 195 200 205  
 Ala Asp Gly Ser Glu Asp Glu Met Asp Gln Arg Arg Lys Ser Pro Glu  
 210 215 220  
 Arg Glu Arg Glu Arg Asp Arg Asp Arg Arg Arg Asp Ser His Arg His  
 225 230 235 240  
 Arg Asp Arg Asp Tyr Asp Arg Asp Tyr Asp Met Asp Arg Asp His Asp  
 245 250 255  
 Arg Asp Tyr Glu Arg Glu Arg Gly His Gly Arg Asp Arg Asp Arg Glu  
 260 265 270  
 Arg Asp Arg Asp His Tyr Arg Glu Arg Asp Arg Asp Arg Glu Arg Gly  
 275 280 285  
 Arg Asp Arg Glu Arg Asp Arg Arg Asp Arg Ala Arg Arg Arg Ser Arg  
 290 295 300  
 Ser Arg Ser Arg Asp Arg Lys Arg His Glu Thr Asp Asp Val Arg Asp  
 305 310 315 320  
 Arg Glu Glu Pro Lys Lys Lys Lys Glu Lys Lys Glu Lys Met Lys Glu  
 325 330 335  
 Asp Gly Thr Asp His Pro Asn Pro Glu Ile Ala Glu Met Asn Arg Leu

340	345	350
Arg Ala Ser Leu Gly Met Lys Pro Leu Arg Asp		
355	360	
<210> 121		
<211> 524		
<212> PRT		
<213> Homo sapiens		
<400> 121		
Met Thr Glu Asp Lys Val Thr Gly Thr Leu Val Phe Thr Val Ile Thr		
1	5	10
15		
Ala Val Leu Gly Ser Phe Gln Phe Gly Tyr Asp Ile Gly Val Ile Asn		
20	25	30
Ala Pro Gln Gln Val Ile Ile Ser His Tyr Arg His Val Leu Gly Val		
35	40	45
Pro Leu Asp Asp Arg Lys Ala Ile Asn Asn Tyr Val Ile Asn Ser Thr		
50	55	60
Asp Glu Leu Pro Thr Ile Ser Tyr Ser Met Asn Pro Lys Pro Thr Pro		
65	70	75
80		
Trp Ala Glu Glu Glu Thr Val Ala Ala Ala Gln Leu Ile Thr Met Leu		
85	90	95
Trp Ser Leu Ser Val Ser Ser Phe Ala Val Gly Gly Met Thr Ala Ser		
100	105	110
Phe Phe Gly Gly Trp Leu Gly Asp Thr Leu Gly Arg Ile Lys Ala Met		
115	120	125
Leu Val Ala Asn Ile Leu Ser Leu Val Gly Ala Leu Leu Met Gly Phe		
130	135	140
Ser Lys Leu Gly Pro Ser His Ile Leu Ile Ile Ala Gly Arg Ser Ile		
145	150	155
160		
Ser Gly Leu Tyr Cys Gly Leu Ile Ser Gly Leu Val Pro Met Tyr Ile		
165	170	175
Gly Glu Ile Ala Pro Thr Ala Leu Arg Gly Ala Leu Gly Thr Phe His		
180	185	190
Gln Leu Ala Ile Val Thr Gly Ile Leu Ile Ser Gln Ile Ile Gly Leu		
195	200	205
Glu Phe Ile Leu Gly Asn Tyr Asp Leu Trp His Ile Leu Leu Gly Leu		
210	215	220
Ser Gly Val Arg Ala Ile Leu Gln Ser Leu Leu Leu Phe Phe Cys Pro		
225	230	235
240		
Glu Ser Pro Arg Tyr Leu Tyr Ile Lys Leu Asp Glu Glu Val Lys Ala		
245	250	255
Lys Gln Ser Leu Lys Arg Leu Arg Gly Tyr Asp Asp Val Thr Lys Asp		
260	265	270

Ile Asn Glu Met Arg Lys Glu Arg Glu Glu Ala Ser Ser Glu Gln Lys  
 275 280 285  
 Val Ser Ile Ile Gln Leu Phe Thr Asn Ser Ser Tyr Arg Gln Pro Ile  
 290 295 300  
 Leu Val Ala Leu Met Leu His Val Ala Gln Gln Phe Ser Gly Ile Asn  
 305 310 315 320  
 Gly Ile Phe Tyr Tyr Ser Thr Ser Ile Phe Gln Thr Ala Gly Ile Ser  
 325 330 335  
 Lys Pro Val Tyr Ala Thr Ile Gly Val Gly Ala Val Asn Met Val Phe  
 340 345 350  
 Thr Ala Val Ser Val Phe Leu Val Glu Lys Ala Gly Arg Arg Ser Leu  
 355 360 365  
 Phe Leu Ile Gly Met Ser Gly Met Phe Val Cys Ala Ile Phe Met Ser  
 370 375 380  
 Val Gly Leu Val Leu Leu Asn Lys Phe Ser Trp Met Ser Tyr Val Ser  
 385 390 395 400  
 Met Ile Ala Ile Phe Leu Phe Val Ser Phe Phe Glu Ile Gly Pro Gly  
 405 410 415  
 Pro Ile Pro Trp Phe Met Val Ala Glu Phe Phe Ser Gln Gly Pro Arg  
 420 425 430  
 Pro Ala Ala Leu Ala Ile Ala Ala Phe Ser Asn Trp Thr Cys Asn Phe  
 435 440 445  
 Ile Val Ala Leu Cys Phe Gln Tyr Ile Ala Asp Phe Cys Gly Pro Tyr  
 450 455 460  
 Val Phe Phe Leu Phe Ala Gly Val Leu Leu Ala Phe Thr Leu Phe Thr  
 465 470 475 480  
 Phe Phe Lys Val Pro Glu Thr Lys Gly Lys Ser Phe Glu Glu Ile Ala  
 485 490 495  
 Ala Glu Phe Gln Lys Lys Ser Gly Ser Ala His Arg Pro Lys Ala Ala  
 500 505 510  
 Val Glu Met Lys Phe Leu Gly Ala Thr Glu Thr Val  
 515 520

<210> 122  
 <211> 523  
 <212> PRT  
 <213> Mus musculus

<400> 122  
 Met Ser Glu Asp Lys Ile Thr Gly Thr Leu Ala Phe Thr Val Phe Thr  
 1 5 10 15  
 Ala Val Leu Ser Ser Phe Gln Phe Gly Tyr Asp Ile Gly Val Ile Asn  
 20 25 30

Ala Pro Gln Glu Val Ile Ile Ser His Tyr Arg His Val Leu Gly Val  
 35 40 45  
 Pro Leu Asp Asp Arg Lys Ala Ala Ile Asn Tyr Asp Val Asn Gly Thr  
 50 55 60  
 Asp Thr Pro Leu Thr Val Thr Pro Ala Tyr Thr Thr Pro Ala Pro Trp  
 65 70 75 80  
 Asp Glu Glu Glu Thr Glu Gly Ser Ala His Ile Val Thr Met Leu Trp  
 85 90 95  
 Ser Leu Ser Val Ser Ser Phe Ala Val Gly Gly Met Val Ala Ser Phe  
 100 105 110  
 Phe Gly Gly Trp Leu Gly Asp Lys Leu Gly Arg Ile Lys Ala Met Leu  
 115 120 125  
 Ala Ala Asn Ser Leu Ser Leu Thr Gly Ala Leu Leu Met Gly Cys Ser  
 130 135 140  
 Lys Phe Gly Pro Ala His Ala Leu Ile Ile Ala Gly Arg Ser Val Ser  
 145 150 155 160  
 Gly Leu Tyr Cys Gly Leu Ile Ser Gly Leu Val Pro Met Tyr Ile Gly  
 165 170 175  
 Glu Ile Ala Pro Thr Thr Leu Arg Gly Ala Leu Gly Thr Leu His Gln  
 180 185 190  
 Leu Ala Leu Val Thr Gly Ile Leu Ile Ser Gln Ile Ala Gly Leu Ser  
 195 200 205  
 Phe Ile Leu Gly Asn Gln Asp His Trp His Ile Leu Leu Gly Leu Ser  
 210 215 220  
 Ala Val Pro Ala Leu Leu Gln Cys Leu Leu Leu Leu Phe Cys Pro Glu  
 225 230 235 240  
 Ser Pro Arg Tyr Leu Tyr Ile Lys Leu Glu Glu Glu Val Arg Ala Lys  
 245 250 255  
 Lys Ser Leu Lys Arg Leu Arg Gly Thr Glu Asp Val Thr Lys Asp Ile  
 260 265 270  
 Asn Glu Met Lys Lys Glu Lys Glu Glu Ala Ser Thr Glu Gln Lys Val  
 275 280 285  
 Ser Val Ile Gln Leu Phe Thr Asp Ala Asn Tyr Arg Gln Pro Ile Leu  
 290 295 300  
 Val Ala Leu Met Leu His Met Ala Gln Gln Phe Ser Gly Ile Asn Gly  
 305 310 315 320  
 Ile Phe Tyr Tyr Ser Thr Ser Ile Phe Gln Thr Ala Gly Ile Ser Gln  
 325 330 335  
 Pro Val Tyr Ala Thr Ile Gly Val Gly Ala Ile Asn Met Ile Phe Thr  
 340 345 350  
 Ala Val Ser Val Leu Leu Val Glu Lys Ala Gly Arg Arg Thr Leu Phe  
 355 360 365

Leu Thr Gly Met Ile Gly Met Phe Phe Cys Thr Ile Phe Met Ser Val  
 370 375 380  
 Gly Leu Val Leu Leu Asp Lys Phe Ala Trp Met Ser Tyr Val Ser Met  
 385 390 395 400  
 Thr Ala Ile Phe Leu Phe Val Ser Phe Phe Glu Ile Gly Pro Gly Pro  
 405 410 415  
 Ile Pro Trp Phe Met Val Ala Glu Phe Phe Ser Gln Gly Pro Arg Pro  
 420 425 430  
 Thr Ala Leu Ala Leu Ala Ala Phe Ser Asn Trp Val Cys Asn Phe Val  
 435 440 445  
 Ile Ala Leu Cys Phe Gln Tyr Ile Ala Asp Phe Leu Gly Pro Tyr Val  
 450 455 460  
 Phe Phe Leu Phe Ala Gly Val Val Leu Val Phe Thr Leu Phe Thr Phe  
 465 470 475 480  
 Phe Lys Val Pro Glu Thr Lys Gly Lys Ser Phe Glu Glu Ile Ala Ala  
 485 490 495  
 Glu Phe Arg Lys Lys Ser Gly Ser Ala Pro Pro Arg Lys Ala Ala Val  
 500 505 510  
 Gln Met Glu Phe Leu Ala Ser Ser Glu Ser Val  
 515 520

<210> 123  
 <211> 523  
 <212> PRT  
 <213> Mus musculus

<400> 123  
 Met Ser Glu Asp Lys Ile Thr Gly Thr Leu Ala Phe Thr Val Phe Thr  
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 Ala Val Leu Ser Ser Phe Gln Phe Gly Tyr Asp Ile Gly Val Ile Asn  
 20 25 30  
 Ala Pro Gln Glu Val Ile Ile Ser His Tyr Arg His Val Leu Gly Val  
 35 40 45  
 Pro Leu Asp Asp Arg Lys Ala Ala Ile Asn Tyr Asp Val Asn Gly Thr  
 50 55 60  
 Asp Thr Pro Leu Thr Val Thr Pro Ala Tyr Thr Thr Pro Ala Pro Trp  
 65 70 75 80  
 Asp Glu Glu Glu Thr Glu Gly Ser Ala His Ile Val Thr Met Leu Trp  
 85 90 95  
 Ser Leu Ser Val Ser Ser Phe Ala Val Asp Gly Met Val Ala Ser Phe  
 100 105 110  
 Phe Gly Gly Trp Leu Gly Asp Lys Leu Gly Arg Ile Lys Ala Met Leu  
 115 120 125

Ala Ala Asn Ser Leu Ser Leu Thr Gly Ala Leu Leu Met Gly Cys Ser  
 130 135 140  
 Lys Phe Gly Pro Ala His Ala Leu Ile Ile Ala Gly Arg Ser Val Ser  
 145 150 155 160  
 Gly Leu Tyr Cys Gly Leu Ile Ser Gly Leu Val Pro Met Tyr Ile Gly  
 165 170 175  
 Glu Ile Ala Pro Thr Thr Leu Arg Gly Ala Leu Gly Thr Leu His Gln  
 180 185 190  
 Leu Ala Leu Val Thr Gly Ile Leu Ile Ser Gln Ile Ala Gly Leu Ser  
 195 200 205  
 Phe Ile Leu Gly Asn Gln Asp His Trp His Ile Leu Leu Gly Leu Ser  
 210 215 220  
 Ala Val Pro Ala Leu Leu Gln Cys Leu Leu Leu Leu Phe Cys Pro Glu  
 225 230 235 240  
 Ser Pro Arg Tyr Leu Tyr Ile Lys Leu Glu Glu Glu Val Arg Ala Lys  
 245 250 255  
 Lys Ser Leu Lys Arg Leu Arg Gly Thr Glu Asp Val Thr Lys Asp Ile  
 260 265 270  
 Asn Glu Met Lys Lys Glu Lys Glu Glu Ala Ser Thr Glu Gln Lys Val  
 275 280 285  
 Ser Val Ile Gln Leu Phe Thr Asp Ala Asn Tyr Arg Gln Pro Ile Leu  
 290 295 300  
 Val Ala Leu Met Leu His Met Ala Gln Gln Phe Ser Gly Ile Asn Gly  
 305 310 315 320  
 Ile Phe Tyr Tyr Ser Thr Thr Ile Phe Gln Thr Ala Gly Ile Ser Gln  
 325 330 335  
 Pro Val Tyr Ala Thr Ile Gly Val Gly Ala Ile Asn Met Ile Phe Thr  
 340 345 350  
 Ala Val Ser Val Leu Leu Val Glu Lys Ala Gly Arg Arg Thr Leu Phe  
 355 360 365  
 Leu Thr Gly Met Ile Gly Met Phe Phe Cys Thr Ile Phe Met Ser Val  
 370 375 380  
 Gly Leu Val Leu Leu Asp Lys Phe Ala Trp Met Ser Tyr Val Ser Met  
 385 390 395 400  
 Thr Ala Ile Phe Leu Phe Val Ser Phe Phe Glu Ile Gly Pro Gly Pro  
 405 410 415  
 Ile Pro Trp Phe Met Val Ala Glu Phe Phe Ser Gln Gly Pro Arg Pro  
 420 425 430  
 Thr Ala Leu Ala Leu Ala Ala Phe Ser Asn Trp Val Cys Asn Phe Val  
 435 440 445  
 Ile Ala Leu Cys Phe Gln Tyr Ile Ala Asp Phe Leu Gly Pro Tyr Val  
 450 455 460

Phe Phe Leu Phe Ala Gly Val Val Leu Val Phe Thr Leu Phe Thr Phe  
 465 470 475 480  
 Phe Lys Val Pro Glu Thr Lys Gly Lys Ser Phe Glu Glu Ile Ala Ala  
 485 490 495  
 Glu Phe Arg Lys Lys Ser Gly Ser Ala Pro Pro Arg Lys Ala Ala Val  
 500 505 510  
 Gln Met Glu Phe Leu Ala Ser Ser Glu Ser Val  
 515 520  
  
 <210> 124  
 <211> 522  
 <212> PRT  
 <213> Rattus norvegicus  
  
 <400> 124  
 Met Ser Glu Asp Lys Ile Thr Gly Thr Leu Ala Phe Thr Val Phe Thr  
 1 5 10 15  
 Ala Val Leu Gly Ser Phe Gln Phe Gly Tyr Asp Ile Gly Val Ile Asn  
 20 25 30  
 Ala Pro Gln Glu Val Ile Ile Ser His Tyr Arg His Val Leu Gly Val  
 35 40 45  
 Pro Leu Asp Asp Arg Arg Ala Thr Ile Asn Tyr Asp Ile Asn Gly Thr  
 50 55 60  
 Asp Thr Pro Leu Ile Val Thr Pro Ala His Thr Thr Pro Asp Ala Trp  
 65 70 75 80  
 Glu Glu Glu Thr Glu Gly Ser Ala His Ile Val Thr Met Leu Trp Ser  
 85 90 95  
 Leu Ser Val Ser Ser Phe Ala Val Gly Gly Met Val Ala Ser Phe Phe  
 100 105 110  
 Gly Gly Trp Leu Gly Asp Lys Leu Gly Arg Ile Lys Ala Met Leu Ala  
 115 120 125  
 Ala Asn Ser Leu Ser Leu Thr Gly Ala Leu Leu Met Gly Cys Ser Lys  
 130 135 140  
 Phe Gly Pro Ala His Ala Leu Ile Ile Ala Gly Arg Ser Val Ser Gly  
 145 150 155 160  
 Leu Tyr Cys Gly Leu Ile Ser Gly Leu Val Pro Met Tyr Ile Gly Glu  
 165 170 175  
 Ile Ala Pro Thr Thr Leu Arg Gly Ala Leu Gly Thr Leu His Gln Leu  
 180 185 190  
 Ala Leu Val Thr Gly Ile Leu Ile Ser Gln Ile Ala Gly Leu Ser Phe  
 195 200 205  
 Ile Leu Gly Asn Gln Asp Tyr Trp His Ile Leu Leu Gly Leu Ser Ala  
 210 215 220

Val Pro Ala Leu Leu Gln Cys Leu Leu Leu Leu Phe Cys Pro Glu Ser  
 225 230 235 240  
 Pro Arg Tyr Leu Tyr Leu Lys Leu Glu Glu Glu Val Arg Ala Lys Lys  
 245 250 255  
 Ser Leu Lys Arg Leu Arg Gly Thr Glu Asp Ile Thr Lys Asp Ile Asn  
 260 265 270  
 Glu Met Arg Lys Glu Lys Glu Glu Ala Ser Thr Glu Gln Lys Val Ser  
 275 280 285  
 Val Ile Gln Leu Phe Thr Asp Pro Asn Tyr Arg Gln Pro Ile Val Val  
 290 295 300  
 Ala Leu Met Leu His Leu Ala Gln Gln Phe Ser Gly Ile Asn Gly Ile  
 305 310 315 320  
 Phe Tyr Tyr Ser Thr Ser Ile Phe Gln Thr Ala Gly Ile Ser Gln Pro  
 325 330 335  
 Val Tyr Ala Thr Ile Gly Val Gly Ala Ile Asn Met Ile Phe Thr Ala  
 340 345 350  
 Val Ser Val Leu Leu Val Glu Lys Ala Gly Arg Arg Thr Leu Phe Leu  
 355 360 365  
 Ala Gly Met Ile Gly Met Phe Phe Cys Ala Val Phe Met Ser Leu Gly  
 370 375 380  
 Leu Val Leu Leu Asp Lys Phe Thr Trp Met Ser Tyr Val Ser Met Thr  
 385 390 395 400  
 Ala Ile Phe Leu Phe Val Ser Phe Phe Glu Ile Gly Pro Gly Pro Ile  
 405 410 415  
 Pro Trp Phe Met Val Ala Glu Phe Phe Ser Gln Gly Pro Arg Pro Thr  
 420 425 430  
 Ala Leu Ala Leu Ala Ala Phe Ser Asn Trp Val Cys Asn Phe Ile Ile  
 435 440 445  
 Ala Leu Cys Phe Gln Tyr Ile Ala Asp Phe Leu Gly Pro Tyr Val Phe  
 450 455 460  
 Phe Leu Phe Ala Gly Val Val Leu Val Phe Thr Leu Phe Thr Phe Phe  
 465 470 475 480  
 Lys Val Pro Glu Thr Lys Gly Lys Ser Phe Asp Glu Ile Ala Ala Glu  
 485 490 495  
 Phe Arg Lys Lys Ser Gly Ser Ala Pro Pro Arg Lys Ala Thr Val Gln  
 500 505 510  
 Met Glu Phe Leu Gly Ser Ser Glu Thr Val  
 515 520

<210> 125  
 <211> 522  
 <212> PRT  
 <213> Rattus norvegicus



<400> 125

Met	Ser	Glu	Asp	Lys	Ile	Thr	Gly	Thr	Leu	Ala	Phe	Thr	Val	Phe	Thr
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Ala	Val	Leu	Gly	Ser	Phe	Gln	Phe	Gly	Tyr	Asp	Ile	Gly	Val	Ile	Asn
			20					25					30		
Ala	Pro	Gln	Glu	Val	Ile	Ile	Ser	His	Tyr	Arg	His	Val	Leu	Gly	Val
			35				40					45			
Pro	Leu	Asp	Asp	Arg	Arg	Ala	Thr	Ile	Asn	Tyr	Asp	Ile	Asn	Gly	Thr
	50					55					60				
Asp	Thr	Pro	Leu	Ile	Val	Thr	Pro	Ala	His	Thr	Thr	Pro	Asp	Ala	Trp
65					70					75					80
Glu	Glu	Glu	Thr	Glu	Gly	Ser	Ala	His	Ile	Val	Thr	Met	Leu	Trp	Ser
				85					90					95	
Leu	Ser	Val	Ser	Ser	Phe	Ala	Val	Gly	Gly	Met	Val	Ala	Ser	Phe	Phe
			100					105					110		
Gly	Gly	Trp	Leu	Gly	Asp	Lys	Leu	Gly	Arg	Ile	Lys	Ala	Met	Leu	Ala
		115					120					125			
Ala	Asn	Ser	Leu	Ser	Leu	Thr	Gly	Ala	Leu	Leu	Met	Gly	Cys	Ser	Lys
	130						135				140				
Phe	Gly	Pro	Ala	His	Ala	Leu	Ile	Ile	Ala	Gly	Arg	Ser	Val	Ser	Gly
145					150					155					160
Leu	Tyr	Cys	Gly	Leu	Ile	Ser	Gly	Leu	Val	Pro	Met	Tyr	Ile	Gly	Glu
				165					170					175	
Ile	Ala	Pro	Thr	Thr	Leu	Arg	Gly	Ala	Leu	Gly	Thr	Leu	His	Gln	Leu
			180					185					190		
Ala	Leu	Val	Thr	Gly	Ile	Leu	Ile	Ser	Gln	Ile	Ala	Gly	Leu	Ser	Phe
		195					200					205			
Ile	Leu	Gly	Asn	Gln	Asp	Tyr	Trp	His	Ile	Leu	Leu	Gly	Leu	Ser	Ala
	210					215					220				
Val	Pro	Ala	Leu	Leu	Gln	Cys	Leu	Leu	Leu	Leu	Phe	Cys	Pro	Glu	Ser
225					230					235					240
Pro	Arg	Tyr	Leu	Tyr	Leu	Asn	Leu	Glu	Glu	Glu	Val	Arg	Ala	Lys	Lys
				245					250					255	
Ser	Leu	Lys	Arg	Leu	Arg	Gly	Thr	Glu	Asp	Ile	Thr	Lys	Asp	Ile	Asn
			260					265					270		
Glu	Met	Arg	Lys	Glu	Lys	Glu	Glu	Ala	Ser	Thr	Glu	Gln	Lys	Val	Ser
		275					280					285			
Val	Ile	Gln	Leu	Phe	Thr	Asp	Pro	Asn	Tyr	Arg	Gln	Pro	Ile	Val	Val
	290					295					300				
Ala	Leu	Met	Leu	His	Leu	Ala	Gln	Gln	Phe	Ser	Gly	Ile	Asn	Gly	Ile
305					310					315					320

Phe Tyr Tyr Ser Thr Ser Ile Phe Gln Thr Ala Gly Ile Ser Gln Pro  
 325 330 335  
 Val Tyr Ala Thr Ile Gly Val Gly Ala Ile Asn Met Ile Phe Thr Ala  
 340 345 350  
 Val Ser Val Leu Leu Val Glu Lys Ala Gly Arg Arg Thr Leu Phe Leu  
 355 360 365  
 Ala Gly Met Ile Gly Met Phe Phe Cys Ala Val Phe Met Ser Leu Gly  
 370 375 380  
 Leu Val Leu Leu Asp Lys Phe Thr Trp Met Ser Tyr Val Ser Met Thr  
 385 390 395 400  
 Ala Ile Phe Leu Phe Val Ser Phe Phe Glu Ile Gly Pro Gly Pro Ile  
 405 410 415  
 Pro Trp Phe Met Val Ala Glu Phe Phe Ser Gln Gly Pro Arg Pro Thr  
 420 425 430  
 Ala Leu Ala Leu Ala Ala Phe Ser Asn Trp Val Cys Asn Phe Ile Ile  
 435 440 445  
 Ala Leu Cys Phe Gln Tyr Ile Ala Asp Phe Leu Gly Pro Tyr Val Phe  
 450 455 460  
 Phe Leu Phe Ala Gly Val Val Leu Val Phe Thr Leu Phe Thr Phe Phe  
 465 470 475 480  
 Lys Val Pro Glu Thr Lys Gly Lys Ser Phe Asp Glu Ile Ala Ala Glu  
 485 490 495  
 Phe Arg Lys Lys Ser Gly Ser Ala Pro Pro Arg Lys Ala Thr Val Gln  
 500 505 510  
 Met Glu Phe Leu Gly Ser Ser Glu Thr Val  
 515 520

<210> 126  
 <211> 592  
 <212> PRT  
 <213> Mus musculus

<400> 126  
 Met Ala Val Pro Pro Leu Leu Arg Gly Ala Leu Leu Leu Trp Gln Leu  
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 Leu Ala Thr Gly Gly Ala Ala Leu Glu Ile Gly Arg Phe Asp Pro Glu  
 20 25 30  
 Arg Gly Arg Gly Pro Ala Pro Cys Gln Ala Met Glu Ile Pro Met Cys  
 35 40 45  
 Arg Gly Ile Gly Tyr Asn Leu Thr Arg Met Pro Asn Leu Leu Gly His  
 50 55 60  
 Thr Ser Gln Gly Glu Ala Ala His Cys Ala Glu Phe Ser Pro Leu  
 65 70 75 80  
 Val Gln Tyr Gly Cys His Ser His Leu Arg Phe Phe Phe Cys Ser Leu

				85				90				95			
Tyr	Ala	Pro	Met	Cys	Thr	Asp	Gln	Val	Ser	Thr	Pro	Ile	Pro	Ala	Cys
100								105				110			
Arg	Pro	Met	Cys	Glu	Gln	Ala	Arg	Leu	Arg	Cys	Ala	Pro	Ile	Met	Glu
115								120				125			
Gln	Phe	Asn	Phe	Gly	Trp	Pro	Asp	Ser	Leu	Asp	Cys	Ala	Arg	Leu	Pro
130								135				140			
Thr	Arg	Asn	Asp	Pro	His	Ala	Leu	Cys	Met	Glu	Ala	Pro	Glu	Asn	Ala
145												155			
Thr	Ala	Gly	Pro	Thr	Glu	Pro	His	Lys	Gly	Leu	Gly	Met	Leu	Pro	Val
				165								175			
Ala	Pro	Arg	Pro	Ala	Arg	Pro	Pro	Gly	Asp	Ser	Ala	Pro	Gly	Pro	Gly
				180				185				190			
Ser	Gly	Gly	Thr	Cys	Asp	Asn	Pro	Glu	Lys	Phe	Gln	Tyr	Val	Glu	Lys
195								200				205			
Ser	Arg	Ser	Cys	Ala	Pro	Arg	Cys	Gly	Pro	Gly	Val	Glu	Val	Phe	Trp
210								215				220			
Ser	Arg	Arg	Asp	Lys	Asp	Phe	Ala	Leu	Val	Trp	Met	Ala	Val	Trp	Ser
225												235			
Ala	Leu	Cys	Phe	Phe	Ser	Thr	Ala	Phe	Thr	Val	Phe	Thr	Phe	Leu	Leu
				245				250				255			
Glu	Pro	His	Arg	Phe	Gln	Tyr	Pro	Glu	Arg	Pro	Ile	Ile	Phe	Leu	Ser
				260				265				270			
Met	Cys	Tyr	Asn	Val	Tyr	Ser	Leu	Ala	Phe	Leu	Ile	Arg	Ala	Val	Ala
275								280				285			
Gly	Ala	Gln	Ser	Val	Ala	Cys	Asp	Gln	Glu	Ala	Gly	Ala	Leu	Tyr	Val
290								295				300			
Ile	Gln	Glu	Gly	Leu	Glu	Asn	Thr	Gly	Cys	Thr	Leu	Val	Phe	Leu	Leu
305												315			
Leu	Tyr	Tyr	Phe	Gly	Met	Ala	Ser	Ser	Leu	Trp	Trp	Val	Val	Leu	Thr
				325				330				335			
Leu	Thr	Trp	Phe	Leu	Ala	Ala	Gly	Lys	Lys	Trp	Gly	His	Glu	Ala	Ile
				340				345				350			
Glu	Ala	His	Gly	Ser	Tyr	Phe	His	Met	Ala	Ala	Trp	Gly	Leu	Pro	Ala
355								360				365			
Leu	Lys	Thr	Ile	Val	Val	Leu	Thr	Leu	Arg	Lys	Val	Ala	Gly	Asp	Glu
370								375				380			
Leu	Thr	Gly	Leu	Cys	Tyr	Val	Ala	Ser	Met	Asp	Pro	Ala	Ala	Leu	Thr
385												395			
Gly	Phe	Val	Leu	Val	Pro	Leu	Ser	Cys	Tyr	Leu	Val	Leu	Gly	Thr	Ser
				405								415			

Phe Leu Leu Thr Gly Phe Val Ala Leu Phe His Ile Arg Lys Ile Met  
 420 425 430  
 Lys Thr Gly Gly Thr Asn Thr Glu Lys Leu Glu Lys Leu Met Val Lys  
 435 440 445  
 Ile Gly Val Phe Ser Ile Leu Tyr Thr Val Pro Ala Thr Cys Val Ile  
 450 455 460  
 Val Cys Tyr Val Tyr Glu Arg Leu Asn Met Asp Phe Trp Arg Leu Arg  
 465 470 475 480  
 Ala Thr Glu Gln Pro Cys Thr Ala Ala Thr Val Pro Gly Gly Arg Arg  
 485 490 495  
 Asp Cys Ser Leu Pro Gly Gly Ser Val Pro Thr Val Ala Val Phe Met  
 500 505 510  
 Leu Lys Ile Phe Met Ser Leu Val Val Gly Ile Thr Ser Gly Val Trp  
 515 520 525  
 Val Trp Ser Ser Lys Thr Phe Gln Thr Trp Gln Ser Leu Cys Tyr Arg  
 530 535 540  
 Lys Met Ala Ala Gly Arg Ala Arg Ala Lys Ala Cys Arg Thr Pro Gly  
 545 550 555 560  
 Gly Tyr Gly Arg Gly Thr His Cys His Tyr Lys Ala Pro Thr Val Val  
 565 570 575  
 Leu His Met Thr Lys Thr Asp Pro Ser Leu Glu Asn Pro Thr His Pro  
 580 585 590

<210> 127  
 <211> 592  
 <212> PRT  
 <213> Mus musculus

<400> 127  
 Met Ala Val Pro Pro Leu Leu Arg Gly Ala Leu Leu Leu Trp Gln Leu  
 1 5 10 15  
 Leu Ala Thr Gly Gly Ala Ala Leu Glu Ile Gly Arg Phe Asp Pro Glu  
 20 25 30  
 Arg Gly Arg Gly Pro Ala Pro Cys Gln Ala Met Glu Ile Pro Met Cys  
 35 40 45  
 Arg Gly Ile Gly Tyr Asn Leu Thr Arg Met Pro Asn Leu Leu Gly His  
 50 55 60  
 Thr Ser Gln Gly Glu Ala Ala Ala Gln Leu Ala Glu Phe Ser Pro Leu  
 65 70 75 80  
 Val Gln Tyr Gly Cys His Ser His Leu Arg Phe Phe Leu Cys Ser Leu  
 85 90 95  
 Tyr Ala Pro Met Cys Thr Asp Gln Val Ser Thr Pro Ile Pro Ala Cys

100								105				110				
Arg	Pro	Met	Cys	Glu	Gln	Ala	Arg	Leu	Arg	Cys	Ala	Pro	Ile	Met	Glu	
							115					120				
Gln	Phe	Asn	Phe	Gly	Trp	Pro	Asp	Ser	Leu	Asp	Cys	Ala	Arg	Leu	Pro	
							130					135				
Thr	Arg	Asn	Asp	Pro	His	Ala	Leu	Cys	Met	Glu	Ala	Pro	Glu	Asn	Ala	
							145					150				
Thr	Ala	Gly	Pro	Thr	Glu	Pro	His	Lys	Gly	Leu	Gly	Met	Leu	Pro	Val	
							165					170				
Ala	Pro	Arg	Pro	Ala	Arg	Pro	Pro	Gly	Asp	Ser	Ala	Pro	Gly	Pro	Gly	
							180					185				
Ser	Gly	Gly	Thr	Cys	Asp	Asn	Pro	Glu	Lys	Phe	Gln	Tyr	Val	Glu	Lys	
							195					200				
Ser	Arg	Ser	Cys	Ala	Pro	Arg	Cys	Gly	Pro	Gly	Val	Glu	Val	Phe	Trp	
							210					215				
Ser	Arg	Arg	Asp	Lys	Asp	Phe	Ala	Leu	Val	Trp	Met	Ala	Val	Trp	Ser	
							225					230				
Ala	Leu	Cys	Phe	Phe	Ser	Thr	Ala	Phe	Thr	Val	Phe	Thr	Phe	Leu	Leu	
							245					250				
Glu	Pro	His	Arg	Phe	Gln	Tyr	Pro	Glu	Arg	Pro	Ile	Ile	Phe	Leu	Ser	
							260					265				
Met	Cys	Tyr	Asn	Val	Tyr	Ser	Leu	Ala	Phe	Leu	Ile	Arg	Ala	Val	Ala	
							275					280				
Gly	Ala	Gln	Ser	Val	Ala	Cys	Asp	Gln	Glu	Ala	Gly	Ala	Leu	Tyr	Val	
							290					295				
Ile	Gln	Glu	Gly	Leu	Glu	Asn	Thr	Gly	Cys	Thr	Leu	Val	Phe	Leu	Leu	
							305					310				
Leu	Tyr	Tyr	Phe	Gly	Met	Ala	Ser	Ser	Leu	Trp	Trp	Val	Val	Leu	Thr	
							325					330				
Leu	Thr	Trp	Phe	Leu	Ala	Ala	Gly	Lys	Lys	Trp	Gly	His	Glu	Ala	Ile	
							340					345				
Glu	Ala	His	Gly	Ser	Tyr	Phe	His	Met	Ala	Ala	Trp	Gly	Leu	Pro	Ala	
							355					360				
Leu	Lys	Thr	Ile	Val	Val	Leu	Thr	Leu	Arg	Lys	Val	Ala	Gly	Asp	Glu	
							370					375				
Leu	Thr	Gly	Leu	Cys	Tyr	Val	Ala	Ser	Met	Asp	Pro	Ala	Ala	Leu	Thr	
							385					390				
Gly	Phe	Val	Leu	Val	Pro	Leu	Ser	Cys	Tyr	Leu	Val	Leu	Gly	Thr	Ser	
							405					410				
Phe	Leu	Leu	Thr	Gly	Phe	Val	Ala	Leu	Phe	His	Ile	Arg	Lys	Ile	Met	
							420					425				

Lys Thr Gly Gly Thr Asn Thr Glu Lys Leu Glu Lys Leu Met Val Lys  
 435 440 445  
 Ile Gly Val Phe Ser Ile Leu Tyr Thr Val Pro Ala Thr Cys Val Ile  
 450 455 460  
 Val Cys Tyr Val Tyr Glu Arg Leu Asn Met Asp Phe Trp Arg Leu Arg  
 465 470 475 480  
 Ala Thr Glu Gln Pro Cys Thr Ala Ala Thr Val Pro Gly Gly Arg Arg  
 485 490 495  
 Asp Cys Ser Leu Pro Gly Gly Ser Val Pro Thr Val Ala Val Phe Met  
 500 505 510  
 Leu Lys Ile Phe Met Ser Leu Val Val Gly Ile Thr Ser Gly Val Trp  
 515 520 525  
 Val Trp Ser Ser Lys Thr Phe Gln Thr Trp Gln Ser Leu Cys Tyr Arg  
 530 535 540  
 Lys Met Ala Ala Gly Arg Ala Arg Ala Lys Ala Cys Arg Thr Pro Gly  
 545 550 555 560  
 Gly Tyr Gly Arg Gly Thr His Cys His Tyr Lys Ala Pro Thr Val Val  
 565 570 575  
 Leu His Met Thr Lys Thr Asp Pro Ser Leu Glu Asn Pro Thr His Leu  
 580 585 590

<210> 128  
 <211> 591  
 <212> PRT  
 <213> Homo sapiens

<400> 128  
 Met Ala Val Ala Pro Leu Arg Gly Ala Leu Leu Leu Trp Gln Leu Leu  
 1 5 10 15  
 Ala Ala Gly Gly Ala Ala Leu Glu Ile Gly Arg Phe Asp Pro Glu Arg  
 20 25 30  
 Gly Arg Gly Ala Ala Pro Cys Gln Ala Val Glu Ile Pro Met Cys Arg  
 35 40 45  
 Gly Ile Gly Tyr Asn Leu Thr Arg Met Pro Asn Leu Leu Gly His Thr  
 50 55 60  
 Ser Gln Gly Glu Ala Ala Glu Leu Ala Glu Phe Ala Pro Leu Val  
 65 70 75 80  
 Gln Tyr Gly Cys His Ser His Leu Arg Phe Phe Leu Cys Ser Leu Tyr  
 85 90 95  
 Ala Pro Met Cys Thr Asp Gln Val Ser Thr Pro Ile Pro Ala Cys Arg  
 100 105 110  
 Pro Met Cys Glu Gln Ala Arg Leu Arg Cys Ala Pro Ile Met Glu Gln

115	120	125
Phe Asn Phe Gly Trp Pro Asp Ser Leu Asp Cys Ala Arg Leu Pro Thr		
130	135	140
Arg Asn Asp Pro His Ala Leu Cys Met Glu Ala Pro Glu Asn Ala Thr		
145	150	155
Ala Gly Pro Ala Glu Pro His Lys Gly Leu Gly Met Leu Pro Val Ala		
165	170	175
Pro Arg Pro Ala Arg Pro Pro Gly Asp Leu Gly Pro Gly Ala Gly Gly		
180	185	190
Ser Gly Thr Cys Glu Asn Pro Glu Lys Phe Gln Tyr Val Glu Lys Ser		
195	200	205
Arg Ser Cys Ala Pro Arg Cys Gly Pro Gly Val Glu Val Phe Trp Ser		
210	215	220
Arg Arg Asp Lys Asp Phe Ala Leu Val Trp Met Ala Val Trp Ser Ala		
225	230	235
Leu Cys Phe Phe Ser Thr Ala Phe Thr Val Leu Thr Phe Leu Leu Glu		
245	250	255
Pro His Arg Phe Gln Tyr Pro Glu Arg Pro Ile Ile Phe Leu Ser Met		
260	265	270
Cys Tyr Asn Val Tyr Ser Leu Ala Phe Leu Ile Arg Ala Val Ala Gly		
275	280	285
Ala Gln Ser Val Ala Cys Asp Gln Glu Ala Gly Ala Leu Tyr Val Ile		
290	295	300
Gln Glu Gly Leu Glu Asn Thr Gly Cys Thr Leu Val Phe Leu Leu Leu		
305	310	315
Tyr Tyr Phe Gly Met Ala Ser Ser Leu Trp Trp Val Val Leu Thr Leu		
325	330	335
Thr Trp Phe Leu Ala Ala Gly Lys Lys Trp Gly His Glu Ala Ile Glu		
340	345	350
Ala His Gly Ser Tyr Phe His Met Ala Ala Trp Gly Leu Pro Ala Leu		
355	360	365
Lys Thr Ile Val Ile Leu Thr Leu Arg Lys Val Ala Gly Asp Glu Leu		
370	375	380
Thr Gly Leu Cys Tyr Val Ala Ser Thr Asp Ala Ala Ala Leu Thr Gly		
385	390	395
Phe Val Leu Val Pro Leu Ser Gly Tyr Leu Val Leu Gly Ser Ser Phe		
405	410	415
Leu Leu Thr Gly Phe Val Ala Leu Phe His Ile Arg Lys Ile Met Lys		
420	425	430
Thr Gly Gly Thr Asn Thr Glu Lys Leu Glu Lys Leu Met Val Lys Ile		
435	440	445

Gly Val Phe Ser Ile Leu Tyr Thr Val Pro Ala Thr Cys Val Ile Val  
 450 455 460  
 Cys Tyr Val Tyr Glu Arg Leu Asn Met Asp Phe Trp Arg Leu Arg Ala  
 465 470 475 480  
 Thr Glu Gln Pro Cys Ala Ala Ala Ala Gly Pro Gly Gly Arg Arg Asp  
 485 490 495  
 Cys Ser Leu Pro Gly Gly Ser Val Pro Thr Val Ala Val Phe Met Leu  
 500 505 510  
 Lys Ile Phe Met Ser Leu Val Val Gly Ile Thr Ser Gly Val Trp Val  
 515 520 525  
 Trp Ser Ser Lys Thr Phe Gln Thr Trp Gln Ser Leu Cys Tyr Arg Lys  
 530 535 540  
 Ile Ala Ala Gly Arg Ala Arg Ala Lys Ala Cys Arg Ala Pro Gly Ser  
 545 550 555 560  
 Tyr Gly Arg Gly Thr His Cys His Tyr Lys Ala Pro Thr Val Val Leu  
 565 570 575  
 His Met Thr Lys Thr Asp Pro Ser Leu Glu Asn Pro Thr His Leu  
 580 585 590

<210> 129  
 <211> 549  
 <212> PRT  
 <213> Mus musculus

<400> 129  
 Glu Ile Pro Met Cys Arg Gly Ile Gly Tyr Asn Leu Thr Arg Met Pro  
 1 5 10 15  
 Asn Leu Leu Gly His Thr Pro Gln Gly Glu Ala Ala Ala Gln Leu Ala  
 20 25 30  
 Glu Phe Ser Pro Leu Val Gln Tyr Gly Cys His Ser His Leu Arg Phe  
 35 40 45  
 Phe Leu Cys Ser Leu Tyr Ala Pro Met Cys Thr Asp Gln Val Ser Thr  
 50 55 60  
 Pro Ile Pro Ala Cys Arg Pro Met Cys Glu Gln Ala Arg Leu Arg Cys  
 65 70 75 80  
 Ala Pro Ile Met Glu Gln Phe Asn Phe Gly Trp Pro Asp Ser Leu Asp  
 85 90 95  
 Cys Ala Arg Leu Pro Thr Arg Asn Asp Pro His Ala Leu Cys Met Glu  
 100 105 110  
 Ala Pro Glu Asn Ala Thr Ala Gly Pro Thr Glu Pro His Lys Gly Leu  
 115 120 125  
 Gly Met Leu Pro Val Ala Pro Arg Pro Ala Arg Pro Pro Gly Asp Ser  
 130 135 140  
 Ala Pro Gly Pro Gly Ser Gly Gly Thr Cys Asp Asn Pro Glu Lys Phe



145		150		155		160
Gln Tyr Val Glu	Lys Ser Arg Ser Cys	Ala Pro Arg Cys Gly	Pro Gly			
	165	170	175			
Val Glu Val Phe	Trp Ser Arg Arg Asp	Lys Asp Phe Ala	Leu Val Trp			
	180	185	190			
Met Ala Val Trp	Ser Ala Leu Cys Phe	Phe Ser Thr Ala	Phe Thr Val			
	195	200	205			
Phe Thr Phe Leu	Leu Glu Pro His Arg	Phe Gln Tyr Pro	Glu Arg Pro			
	210	215	220			
Ile Ile Phe Leu	Ser Met Cys Tyr Asn	Val Tyr Ser Leu	Ala Phe Leu			
225	230	235	240			
Ile Arg Ala Val	Ala Gly Ala Gln Ser	Val Ala Cys Asp	Gln Glu Ala			
	245	250	255			
Gly Ala Leu Tyr	Val Ile Gln Glu Asp	Leu Glu Asn Thr	Gly Cys Thr			
	260	265	270			
Leu Val Phe Leu	Leu Leu Tyr Tyr	Phe Gly Met Ala	Ser Ser Leu Trp			
	275	280	285			
Trp Val Val Leu	Thr Leu Thr Trp	Phe Leu Ala Ala	Gly Lys Lys Trp			
	290	295	300			
Gly His Glu Ala	Ile Glu Ala His Gly	Ser Tyr Phe His	Met Ala Ala			
305	310	315	320			
Trp Gly Leu Pro	Ala Leu Lys Thr Ile	Val Val Leu Thr	Leu Arg Lys			
	325	330	335			
Val Ala Gly Asp	Glu Leu Thr Gly	Leu Cys Tyr Val	Ala Ser Met Asp			
	340	345	350			
Pro Ala Ala Leu	Thr Gly Phe Val	Leu Val Pro Leu	Ser Cys Tyr Leu			
	355	360	365			
Val Leu Gly Thr	Ser Phe Leu Leu	Thr Gly Phe Val	Ala Leu Phe His			
	370	375	380			
Ile Arg Lys Ile	Met Lys Thr Gly	Gly Thr Asn Thr	Glu Lys Leu Glu			
385	390	395	400			
Lys Leu Met Val	Lys Ile Gly Val	Phe Ser Ile Leu	Tyr Thr Val Pro			
	405	410	415			
Ala Thr Cys Val	Ile Val Cys Tyr	Val Tyr Glu Arg	Leu Asn Met Asp			
	420	425	430			
Phe Trp Arg Leu	Arg Ala Thr Glu	Gln Pro Cys Thr	Ala Ala Thr Val			
	435	440	445			
Pro Gly Gly Arg	Arg Asp Cys Ser	Leu Pro Gly Gly	Ser Val Pro Thr			
	450	455	460			
Val Ala Val Phe	Met Leu Lys Ile	Phe Met Ser Leu	Val Val Gly Ile			
465	470	475	480			

Thr Ser Gly Val Trp Val Trp Ser Ser Lys Thr Phe Gln Thr Trp Gln  
 485 490 495  
 Ser Leu Cys Tyr Arg Lys Met Ala Ala Gly Arg Ala Arg Ala Lys Ala  
 500 505 510  
 Cys Arg Thr Pro Gly Gly Tyr Gly Arg Gly Thr His Cys His Tyr Lys  
 515 520 525  
 Ala Pro Thr Val Val Leu His Met Thr Lys Thr Asp Pro Ser Leu Glu  
 530 535 540  
 Asn Pro Thr His Leu  
 545  
 <210> 130  
 <211> 577  
 <212> PRT  
 <213> Danio rerio  
 <400> 130  
 Met Gly Ser Ser Pro Gln Ile Val Ile Ser Leu Trp Cys His Leu Val  
 1 5 10 15  
 Ile Ala Ala Tyr Ser Leu Glu Ile Gly Ser Tyr Asp Leu Glu Arg Gly  
 20 25 30  
 Arg Pro Ala Lys Cys Glu Pro Ile Val Ile Pro Met Cys Gln Gly Ile  
 35 40 45  
 Gly Tyr Asn Leu Thr Arg Met Pro Asn Phe Met Asp His Asp Asn Gln  
 50 55 60  
 Arg Glu Ala Ala Ile Lys Leu Asn Glu Phe Ala Pro Leu Val Glu Tyr  
 65 70 75 80  
 Gly Cys Asp Val His Leu Arg Phe Phe Leu Cys Ser Leu Tyr Ala Pro  
 85 90 95  
 Met Cys Thr Asp Gln Val Ser Thr Ser Ile Pro Ala Cys Arg Pro Met  
 100 105 110  
 Cys Glu Gln Ala Arg Gln Glu Cys Ser Pro Ile Met Glu Lys Phe Asn  
 115 120 125  
 Tyr Ala Trp Pro Glu Ser Leu Asn Cys Ser Lys Leu Pro Thr Arg Asn  
 130 135 140  
 Asp Pro Asn Ala Leu Cys Met Glu Ala Pro Glu Asn Asp Thr Lys Thr  
 145 150 155 160  
 Glu Thr Lys Lys Gly Glu Gly Met Leu Pro Val Pro Pro Arg Pro Arg  
 165 170 175  
 Gln Pro Gly Ala Gly Asn Ala Arg Ser Gly Gly Thr Met Gly Val Cys  
 180 185 190  
 Glu Asn Pro Glu Lys Phe Gln Tyr Val Glu Lys Ser Glu Thr Cys Ala  
 195 200 205  
 Pro Arg Cys Ser Ser Ala Val Asp Val Phe Trp Ser Arg Gln Asp Lys

210	215	220
Asp Phe Ala Phe Ile Trp Met Ala Val Trp Ser Thr Leu Cys Phe Val 225 230 235 240		
Ser Thr Ala Phe Thr Val Leu Thr Phe Leu Leu Asp Pro His Arg Phe 245 250 255		
Gln Tyr Pro Glu Arg Pro Ile Ile Phe Leu Ser Met Cys Tyr Asn Val 260 265 270		
Tyr Ser Val Ala Phe Ile Ile Arg Ser Val Ala Gly Ala Glu Asn Ile 275 280 285		
Ala Cys Asp Arg Glu Asn Gly Glu Leu Tyr Ile Ile Gln Glu Gly Leu 290 295 300		
Glu Ser Thr Gly Cys Thr Ile Val Phe Leu Ile Leu Tyr Tyr Phe Gly 305 310 315 320		
Met Ala Ser Ser Ile Trp Trp Val Ile Leu Thr Leu Thr Trp Phe Leu 325 330 335		
Ala Ala Gly Lys Lys Trp Gly His Glu Ala Ile Glu Ser His Ser Ser 340 345 350		
Tyr Phe His Met Ala Ala Trp Gly Ile Pro Ala Leu Lys Thr Ile Val 355 360 365		
Ile Leu Thr Met Arg Lys Val Ala Gly Asp Glu Leu Thr Gly Leu Cys 370 375 380		
Tyr Val Gly Ser Met Asp Val Gly Ala Leu Thr Gly Phe Val Leu Val 385 390 395 400		
Pro Leu Ser Cys Tyr Leu Val Ile Gly Thr Ser Phe Ile Leu Thr Gly 405 410 415		
Phe Val Ala Leu Phe His Ile Arg Lys Val Met Lys Thr Glu Gly Thr 420 425 430		
Asn Thr Glu Lys Leu Glu Lys Leu Met Val Lys Ile Gly Ile Tyr Ser 435 440 445		
Ile Leu Tyr Thr Val Pro Ala Thr Cys Val Ile Ile Cys Tyr Phe Tyr 450 455 460		
Glu Arg Leu Asn Met Asp Tyr Trp Lys Phe Arg Gly Leu Gln Ser Lys 465 470 475 480		
Cys Thr Thr Phe Pro Gly Arg Arg Asn Glu Asp Cys Ser Leu Asp Ser 485 490 495		
Ser Val Pro Thr Val Ala Val Phe Ile Leu Lys Ile Phe Met Ser Leu 500 505 510		
Val Val Gly Ile Thr Ser Gly Val Trp Val Trp Ser Ser Lys Thr Leu 515 520 525		
Gln Thr Trp Gln Gly Leu Cys Ser Arg Lys Leu Thr Asp Arg Thr Cys 530 535 540		

Arg Lys His Cys Ser Thr Ser His Cys His Tyr Lys Ala Pro Ala Val  
545 550 555 560

Ile Leu His Met Ser Lys Thr Asp Pro Tyr Ser Asp Cys Pro Thr His  
565 570 575

Val

<210> 131

<211> 856

<212> PRT

<213> Homo sapiens

<400> 131

Met Ala Leu Val Leu Gly Ser Leu Leu Leu Leu Gly Leu Cys Gly Asn  
1 5 10 15

Ser Phe Ser Gly Gly Gln Pro Ser Ser Thr Asp Ala Pro Lys Ala Trp  
20 25 30

Asn Tyr Glu Leu Pro Ala Thr Asn Tyr Glu Thr Gln Asp Ser His Lys  
35 40 45

Ala Gly Pro Ile Gly Ile Leu Phe Glu Leu Val His Ile Phe Leu Tyr  
50 55 60

Val Val Gln Pro Arg Asp Phe Pro Glu Asp Thr Leu Arg Lys Phe Leu  
65 70 75 80

Gln Lys Ala Tyr Glu Ser Lys Ile Asp Tyr Asp Lys Ile Val Tyr Tyr  
85 90 95

Glu Ala Gly Ile Ile Leu Cys Cys Val Leu Gly Leu Leu Phe Ile Ile  
100 105 110

Leu Met Pro Leu Val Gly Tyr Phe Phe Cys Met Cys Arg Cys Cys Asn  
115 120 125

Lys Cys Gly Gly Glu Met His Gln Arg Gln Lys Glu Asn Gly Pro Phe  
130 135 140

Leu Arg Lys Cys Phe Ala Ile Ser Leu Leu Val Ile Cys Ile Ile Ile  
145 150 155 160

Ser Ile Gly Ile Phe Tyr Gly Phe Val Ala Asn His Gln Val Arg Thr  
165 170 175

Arg Ile Lys Arg Ser Arg Lys Leu Ala Asp Ser Asn Phe Lys Asp Leu  
180 185 190

Arg Thr Leu Leu Asn Glu Thr Pro Glu Gln Ile Lys Tyr Ile Leu Ala  
195 200 205

Gln Tyr Asn Thr Thr Lys Asp Lys Ala Phe Thr Asp Leu Asn Ser Ile  
210 215 220

Asn Ser Val Leu Gly Gly Gly Ile Leu Asp Arg Leu Arg Pro Asn Ile  
225 230 235 240

Ile Pro Val Leu Asp Glu Ile Lys Ser Met Ala Thr Ala Ile Lys Glu

245								250				255				
Thr	Lys	Glu	Ala	Leu	Glu	Asn	Met	Asn	Ser	Thr	Leu	Lys	Ser	Leu	His	
			260										270			
Gln	Gln	Ser	Thr	Gln	Leu	Ser	Ser	Ser	Leu	Thr	Ser	Val	Lys	Thr	Ser	
		275					280						285			
Leu	Arg	Ser	Ser	Leu	Asn	Asp	Pro	Leu	Cys	Leu	Val	His	Pro	Ser	Ser	
	290					295					300					
Glu	Thr	Cys	Asn	Ser	Ile	Arg	Leu	Ser	Leu	Ser	Gln	Leu	Asn	Ser	Asn	
305					310					315					320	
Pro	Glu	Leu	Arg	Gln	Leu	Pro	Pro	Val	Asp	Ala	Glu	Leu	Asp	Asn	Val	
				325					330					335		
Asn	Asn	Val	Leu	Arg	Thr	Asp	Leu	Asp	Gly	Leu	Val	Gln	Gln	Gly	Tyr	
			340						345					350		
Gln	Ser	Leu	Asn	Asp	Ile	Pro	Asp	Arg	Val	Gln	Arg	Gln	Thr	Thr	Thr	
		355					360					365				
Val	Val	Ala	Gly	Ile	Lys	Arg	Val	Leu	Asn	Ser	Ile	Gly	Ser	Asp	Ile	
	370					375					380					
Asp	Asn	Val	Thr	Gln	Arg	Leu	Pro	Ile	Gln	Asp	Ile	Leu	Ser	Ala	Phe	
385					390					395					400	
Ser	Val	Tyr	Val	Asn	Asn	Thr	Glu	Ser	Tyr	Ile	His	Arg	Asn	Leu	Pro	
				405					410					415		
Thr	Leu	Glu	Glu	Tyr	Asp	Ser	Tyr	Trp	Trp	Leu	Gly	Gly	Leu	Val	Ile	
			420						425					430		
Cys	Ser	Leu	Leu	Thr	Leu	Ile	Val	Ile	Phe	Tyr	Tyr	Leu	Gly	Leu	Leu	
		435					440					445				
Cys	Gly	Val	Cys	Gly	Tyr	Asp	Arg	His	Ala	Thr	Pro	Thr	Thr	Arg	Gly	
	450					455					460					
Cys	Val	Ser	Asn	Thr	Gly	Gly	Val	Phe	Leu	Met	Val	Gly	Val	Gly	Leu	
465					470					475					480	
Ser	Phe	Leu	Phe	Cys	Trp	Ile	Leu	Met	Ile	Ile	Val	Val	Leu	Thr	Phe	
				485					490					495		
Val	Phe	Gly	Ala	Asn	Val	Glu	Lys	Leu	Ile	Cys	Glu	Pro	Tyr	Thr	Ser	
			500						505					510		
Lys	Glu	Leu	Phe	Arg	Val	Leu	Asp	Thr	Pro	Tyr	Leu	Leu	Asn	Glu	Asp	
		515					520					525				
Trp	Glu	Tyr	Tyr	Leu	Ser	Gly	Lys	Leu	Phe	Asn	Lys	Ser	Lys	Met	Lys	
	530					535					540					
Leu	Thr	Phe	Glu	Gln	Val	Tyr	Ser	Asp	Cys	Lys	Lys	Asn	Arg	Gly	Thr	
545					550					555					560	
Tyr	Gly	Thr	Leu	His	Leu	Gln	Asn	Ser	Phe	Asn	Ile	Ser	Glu	His	Leu	
				565					570					575		

Asn Ile Asn Glu His Thr Gly Ser Ile Ser Ser Glu Leu Glu Ser Leu  
 580 585 590  
 Lys Val Asn Leu Asn Ile Phe Leu Leu Gly Ala Ala Gly Arg Lys Asn  
 595 600 605  
 Leu Gln Asp Phe Ala Ala Cys Gly Ile Asp Arg Met Asn Tyr Asp Ser  
 610 615 620  
 Tyr Leu Ala Gln Thr Gly Lys Ser Pro Ala Gly Val Asn Leu Leu Ser  
 625 630 635 640  
 Phe Ala Tyr Asp Leu Glu Ala Lys Ala Asn Ser Leu Pro Pro Gly Asn  
 645 650 655  
 Leu Arg Asn Ser Leu Lys Arg Asp Ala Gln Thr Ile Lys Thr Ile His  
 660 665 670  
 Gln Gln Arg Val Leu Pro Ile Glu Gln Ser Leu Ser Thr Leu Tyr Gln  
 675 680 685  
 Ser Val Lys Ile Leu Gln Arg Thr Gly Asn Gly Leu Leu Glu Arg Val  
 690 695 700  
 Thr Arg Ile Leu Ala Ser Leu Asp Phe Ala Gln Asn Phe Ile Thr Asn  
 705 710 715 720  
 Asn Thr Ser Ser Val Ile Ile Glu Glu Thr Lys Lys Tyr Gly Arg Thr  
 725 730 735  
 Ile Ile Gly Tyr Phe Glu His Tyr Leu Gln Trp Ile Glu Phe Ser Ile  
 740 745 750  
 Ser Glu Lys Val Ala Ser Cys Lys Pro Val Ala Thr Ala Leu Asp Thr  
 755 760 765  
 Ala Val Asp Val Phe Leu Cys Ser Tyr Ile Ile Asp Pro Leu Asn Leu  
 770 775 780  
 Phe Trp Phe Gly Ile Gly Lys Ala Thr Val Phe Leu Leu Pro Ala Leu  
 785 790 795 800  
 Ile Phe Ala Val Lys Leu Ala Lys Tyr Tyr Arg Arg Met Asp Ser Glu  
 805 810 815  
 Asp Val Tyr Asp Asp Val Glu Thr Ile Pro Met Lys Asn Met Glu Asn  
 820 825 830  
 Gly Asn Asn Gly Tyr His Lys Asp His Val Tyr Gly Ile His Asn Pro  
 835 840 845  
 Val Met Thr Ser Pro Ser Gln His  
 850 855

<210> 132

<211> 865

<212> PRT

<213> Homo sapiens

<400> 132

Met Ala Leu Val Leu Gly Ser Leu Leu Leu Leu Gly Leu Cys Gly Asn

1	5	10	15
Ser Phe Ser Gly Gly Gln Pro Ser Ser Thr Asp Ala Pro Lys Ala Trp	20	25	30
Asn Tyr Glu Leu Pro Ala Thr Asn Tyr Glu Thr Gln Asp Ser His Lys	35	40	45
Ala Gly Pro Ile Gly Ile Leu Phe Glu Leu Val His Ile Phe Leu Tyr	50	55	60
Val Val Gln Pro Arg Asp Phe Pro Glu Asp Thr Leu Arg Lys Phe Leu	65	70	75
Gln Lys Ala Tyr Glu Ser Lys Ile Asp Tyr Asp Lys Pro Glu Thr Val	85	90	95
Ile Leu Gly Leu Lys Ile Val Tyr Tyr Glu Ala Gly Ile Ile Leu Cys	100	105	110
Cys Val Leu Gly Leu Leu Phe Ile Ile Leu Met Pro Leu Val Gly Tyr	115	120	125
Phe Phe Cys Met Cys Arg Cys Cys Asn Lys Cys Gly Gly Glu Met His	130	135	140
Gln Arg Gln Lys Glu Asn Gly Pro Phe Leu Arg Lys Cys Phe Ala Ile	145	150	155
Ser Leu Leu Val Ile Cys Ile Ile Ile Ser Ile Gly Ile Phe Tyr Gly	165	170	175
Phe Val Ala Asn His Gln Val Arg Thr Arg Ile Lys Arg Ser Arg Lys	180	185	190
Leu Ala Asp Ser Asn Phe Lys Asp Leu Arg Thr Leu Leu Asn Glu Thr	195	200	205
Pro Glu Gln Ile Lys Tyr Ile Leu Ala Gln Tyr Asn Thr Thr Lys Asp	210	215	220
Lys Ala Phe Thr Asp Leu Asn Ser Ile Asn Ser Val Leu Gly Gly Gly	225	230	235
Ile Leu Asp Arg Leu Arg Pro Asn Ile Ile Pro Val Leu Asp Glu Ile	245	250	255
Lys Ser Met Ala Thr Ala Ile Lys Glu Thr Lys Glu Ala Leu Glu Asn	260	265	270
Met Asn Ser Thr Leu Lys Ser Leu His Gln Gln Ser Thr Gln Leu Ser	275	280	285
Ser Ser Leu Thr Ser Val Lys Thr Ser Leu Arg Ser Ser Leu Asn Asp	290	295	300
Pro Leu Cys Leu Val His Pro Ser Ser Glu Thr Cys Asn Ser Ile Arg	305	310	315
Leu Ser Leu Ser Gln Leu Asn Ser Asn Pro Glu Leu Arg Gln Leu Pro	325	330	335

Pro Val Asp Ala Glu Leu Asp Asn Val Asn Asn Val Leu Arg Thr Asp  
 340 345 350  
 Leu Asp Gly Leu Val Gln Gln Gly Tyr Gln Ser Leu Asn Asp Ile Pro  
 355 360 365  
 Asp Arg Val Gln Arg Gln Thr Thr Thr Val Val Ala Gly Ile Lys Arg  
 370 375 380  
 Val Leu Asn Ser Ile Gly Ser Asp Ile Asp Asn Val Thr Gln Arg Leu  
 385 390 395 400  
 Pro Ile Gln Asp Ile Leu Ser Ala Phe Ser Val Tyr Val Asn Asn Thr  
 405 410 415  
 Glu Ser Tyr Ile His Arg Asn Leu Pro Thr Leu Glu Glu Tyr Asp Ser  
 420 425 430  
 Tyr Trp Trp Leu Gly Gly Leu Val Ile Cys Ser Leu Leu Thr Leu Ile  
 435 440 445  
 Val Ile Phe Tyr Tyr Leu Gly Leu Leu Cys Gly Val Cys Gly Tyr Asp  
 450 455 460  
 Arg His Ala Thr Pro Thr Thr Arg Gly Cys Val Ser Asn Thr Gly Gly  
 465 470 475 480  
 Val Phe Leu Met Val Gly Val Gly Leu Ser Phe Leu Phe Cys Trp Ile  
 485 490 495  
 Leu Met Ile Ile Val Val Leu Thr Phe Val Phe Gly Ala Asn Val Glu  
 500 505 510  
 Lys Leu Ile Cys Glu Pro Tyr Thr Ser Lys Glu Leu Phe Arg Val Leu  
 515 520 525  
 Asp Thr Pro Tyr Leu Leu Asn Glu Asp Trp Glu Tyr Tyr Leu Ser Gly  
 530 535 540  
 Lys Leu Phe Asn Lys Ser Lys Met Lys Leu Thr Phe Glu Gln Val Tyr  
 545 550 555 560  
 Ser Asp Cys Lys Lys Asn Arg Gly Thr Tyr Gly Thr Leu His Leu Gln  
 565 570 575  
 Asn Ser Phe Asn Ile Ser Glu His Leu Asn Ile Asn Glu His Thr Gly  
 580 585 590  
 Ser Ile Ser Ser Glu Leu Glu Ser Leu Lys Val Asn Leu Asn Ile Phe  
 595 600 605  
 Leu Leu Gly Ala Ala Gly Arg Lys Asn Leu Gln Asp Phe Ala Ala Cys  
 610 615 620  
 Gly Ile Asp Arg Met Asn Tyr Asp Ser Tyr Leu Ala Gln Thr Gly Lys  
 625 630 635 640  
 Ser Pro Ala Gly Val Asn Leu Leu Ser Phe Ala Tyr Asp Leu Glu Ala  
 645 650 655  
 Lys Ala Asn Ser Leu Pro Pro Gly Asn Leu Arg Asn Ser Leu Lys Arg  
 660 665 670



Asp Ala Gln Thr Ile Lys Thr Ile His Gln Gln Arg Val Leu Pro Ile  
 675 680 685  
 Glu Gln Ser Leu Ser Thr Leu Tyr Gln Ser Val Lys Ile Leu Gln Arg  
 690 695 700  
 Thr Gly Asn Gly Leu Leu Glu Arg Val Thr Arg Ile Leu Ala Ser Leu  
 705 710 715 720  
 Asp Phe Ala Gln Asn Phe Ile Thr Asn Asn Thr Ser Ser Val Ile Ile  
 725 730 735  
 Glu Glu Thr Lys Lys Tyr Gly Arg Thr Ile Ile Gly Tyr Phe Glu His  
 740 745 750  
 Tyr Leu Gln Trp Ile Glu Phe Ser Ile Ser Glu Lys Val Ala Ser Cys  
 755 760 765  
 Lys Pro Val Ala Thr Ala Leu Asp Thr Ala Val Asp Val Phe Leu Cys  
 770 775 780  
 Ser Tyr Ile Ile Asp Pro Leu Asn Leu Phe Trp Phe Gly Ile Gly Lys  
 785 790 795 800  
 Ala Thr Val Phe Leu Leu Pro Ala Leu Ile Phe Ala Val Lys Leu Ala  
 805 810 815  
 Lys Tyr Tyr Arg Arg Met Asp Ser Glu Asp Val Tyr Asp Asp Val Glu  
 820 825 830  
 Thr Ile Pro Met Lys Asn Met Glu Asn Gly Asn Asn Gly Tyr His Lys  
 835 840 845  
 Asp His Val Tyr Gly Ile His Asn Pro Val Met Thr Ser Pro Ser Gln  
 850 855 860  
 His  
 865

<210> 133  
 <211> 857  
 <212> PRT  
 <213> Rattus norvegicus

<400> 133  
 Met Ala Leu Val Phe Ser Val Leu Leu Leu Leu Gly Leu Cys Gly Lys  
 1 5 10 15  
 Met Ala Ser Gly Gly Gln Pro Ala Phe Asp Asn Thr Pro Gly Ala Leu  
 20 25 30  
 Asn Tyr Glu Leu Pro Thr Thr Glu Tyr Glu Thr Gln Asp Thr Phe Asn  
 35 40 45  
 Ala Gly Ile Ile Asp Pro Leu Tyr Gln Met Val His Ile Phe Leu Asn  
 50 55 60  
 Val Val Gln Pro Asn Asp Phe Pro Gln Asp Leu Val Lys Lys Leu Ile  
 65 70 75 80

Gln Lys Arg Phe Asp Ile Ser Val Asp Thr Lys Glu Val Ala Ile Tyr  
 85 90 95  
 Glu Ile Gly Val Leu Ile Cys Val Ile Leu Gly Leu Leu Phe Ile Phe  
 100 105 110  
 Leu Met Pro Leu Val Gly Phe Phe Phe Cys Met Cys Arg Cys Cys Asn  
 115 120 125  
 Lys Cys Gly Gly Glu Met His Gln Arg Gln Lys Gln Asn Glu Ser Cys  
 130 135 140  
 Arg Arg Lys Cys Leu Ala Ile Ser Leu Leu Leu Ile Cys Leu Leu Met  
 145 150 155 160  
 Ser Leu Gly Ile Ala Phe Gly Phe Val Ala Asn Gln Gln Thr Arg Thr  
 165 170 175  
 Arg Ile Gln Arg Thr Gln Lys Leu Ala Glu Ser Asn Tyr Arg Asp Leu  
 180 185 190  
 Arg Ala Leu Leu Thr Glu Ala Pro Lys Gln Ile Asp Tyr Ile Leu Gly  
 195 200 205  
 Gln Tyr Asn Thr Thr Lys Asn Lys Ala Phe Ser Asp Leu Asp Ser Ile  
 210 215 220  
 Asp Ser Val Leu Gly Gly Arg Ile Lys Gly Gln Leu Lys Pro Lys Val  
 225 230 235 240  
 Thr Pro Val Leu Glu Glu Ile Lys Ala Met Ala Thr Ala Ile Arg Gln  
 245 250 255  
 Thr Lys Asp Ala Leu Gln Asn Met Ser Ser Ser Leu Lys Ser Leu Arg  
 260 265 270  
 Asp Ala Ser Thr Gln Leu Ser Thr Asn Leu Thr Ser Val Arg Asn Ser  
 275 280 285  
 Ile Glu Asn Ser Leu Asn Ser Asn Asp Cys Ala Ser Asp Pro Ala Ser  
 290 295 300  
 Lys Ile Cys Asp Ser Leu Arg Pro Gln Leu Ser Asn Leu Gly Ser Asn  
 305 310 315 320  
 His Asn Gly Ser Gln Leu Pro Ser Val Asp Arg Glu Leu Asn Thr Val  
 325 330 335  
 Asn Asp Val Asp Arg Thr Asp Leu Glu Ser Leu Val Lys Arg Gly Tyr  
 340 345 350  
 Met Ser Ile Asp Glu Ile Pro Asn Met Ile Gln Asn Gln Thr Gly Asp  
 355 360 365  
 Val Ile Lys Asp Val Lys Lys Thr Leu Asp Ser Val Ser Ser Lys Val  
 370 375 380  
 Lys Asn Met Ser Gln Ser Ile Pro Val Glu Glu Val Leu Leu Gln Phe  
 385 390 395 400  
 Ser His Tyr Leu Asn Asp Ser Asn Arg Tyr Ile His Glu Ser Leu Pro  
 405 410 415

Arg Val Glu Glu Tyr Asp Ser Tyr Trp Trp Leu Gly Gly Leu Ile Val  
 420 425 430  
 Cys Phe Leu Leu Thr Leu Ile Val Thr Phe Phe Tyr Leu Gly Leu Leu  
 435 440 445  
 Cys Gly Val Phe Gly Tyr Asp Lys Arg Ala Thr Pro Thr Arg Arg Gly  
 450 455 460  
 Cys Val Ser Asn Thr Gly Gly Ile Phe Leu Met Ala Gly Val Gly Phe  
 465 470 475 480  
 Ser Phe Leu Phe Cys Trp Ile Leu Met Ile Leu Val Val Leu Thr Phe  
 485 490 495  
 Val Val Gly Ala Asn Val Glu Lys Leu Leu Cys Glu Pro Tyr Glu Asn  
 500 505 510  
 Lys Lys Leu Leu Gln Val Leu Asp Thr Pro Tyr Leu Leu Asn Asp Gln  
 515 520 525  
 Trp Gln Phe Tyr Leu Ser Gly Ile Leu Leu Lys Asn Pro Asp Ile Asn  
 530 535 540  
 Met Thr Phe Glu Gln Val Tyr Arg Asp Cys Lys Arg Gly Arg Gly Val  
 545 550 555 560  
 Tyr Ala Thr Phe Gln Leu Glu Asn Val Phe Asn Ile Thr Glu Asn Phe  
 565 570 575  
 Asn Ile Glu Arg Leu Ser Glu Asp Ile Val Lys Glu Leu Glu Lys Leu  
 580 585 590  
 Asn Val Asn Ile Asp Ser Ile Glu Leu Leu Asp Lys Thr Gly Arg Lys  
 595 600 605  
 Ser Leu Glu Asp Phe Ala Gln Ser Gly Ile Asp Arg Ile Asn Tyr Ser  
 610 615 620  
 Met Tyr Leu Gln Glu Ala Glu Lys Pro Pro Thr Lys Val Asp Leu Leu  
 625 630 635 640  
 Thr Phe Ala Ser Phe Leu Glu Thr Glu Ala Asn Gln Leu Pro Asp Gly  
 645 650 655  
 Asn Leu Lys Gln Ala Phe Leu Met Asp Ala Gln Asn Ile Arg Ala Ile  
 660 665 670  
 His Gln Gln His Val Pro Pro Val Gln Gln Ser Leu Asn Ser Leu Lys  
 675 680 685  
 Gln Ser Val Trp Ala Leu Lys Gln Thr Ser Ser Lys Leu Pro Glu Glu  
 690 695 700  
 Val Lys Lys Val Leu Ala Ser Leu Asp Ser Ala Gln His Phe Leu Thr  
 705 710 715 720  
 Ser Asn Leu Ser Ser Ile Val Ile Gly Glu Thr Lys Lys Phe Gly Arg  
 725 730 735  
 Thr Ile Ile Gly Tyr Phe Glu His Tyr Leu Gln Trp Val Leu Tyr Ala

740	745	750
Ile Thr Glu Lys Met Thr Ser Cys Lys Pro Met Ile Thr Ala Met Asp 755 760 765		
Ser Ala Val Asn Gly Ile Leu Cys Ser Tyr Val Ala Asp Pro Leu Asn 770 775 780		
Leu Phe Trp Phe Gly Ile Gly Lys Ala Thr Met Leu Leu Leu Pro Ala 785 790 795 800		
Val Ile Ile Ala Ile Lys Leu Ala Lys Tyr Tyr Arg Arg Met Asp Ser 805 810 815		
Glu Asp Val Tyr Asp Asp Val Glu Thr Val Pro Met Lys Asn Leu Glu 820 825 830		
Asn Gly Ser Asn Gly Tyr His Lys Asp His Leu Tyr Gly Val His Asn 835 840 845		
Pro Val Met Thr Ser Pro Ser Arg Tyr 850 855		

<210> 134  
 <211> 867  
 <212> PRT  
 <213> Mus musculus

<400> 134  
 Met Ala Leu Val Phe Ser Ala Leu Leu Leu Leu Gly Leu Cys Gly Lys  
 1 5 10 15  
 Ile Ser Ser Glu Gly Gln Pro Ala Phe His Asn Thr Pro Gly Ala Met  
 20 25 30  
 Asn Tyr Glu Leu Pro Thr Thr Lys Tyr Glu Thr Gln Asp Thr Phe Asn  
 35 40 45  
 Ala Gly Ile Val Gly Pro Leu Tyr Lys Met Val His Ile Phe Leu Ser  
 50 55 60  
 Val Val Gln Pro Asn Asp Phe Pro Leu Asp Leu Ile Lys Lys Leu Ile  
 65 70 75 80  
 Gln Asn Lys Lys Phe Asp Ile Ser Val Asp Ser Lys Glu Pro Glu Ile  
 85 90 95  
 Ile Val Leu Ala Leu Lys Ile Ala Leu Tyr Glu Ile Gly Val Leu Ile  
 100 105 110  
 Cys Ala Ile Leu Gly Leu Leu Phe Ile Ile Leu Met Pro Leu Val Gly  
 115 120 125  
 Cys Phe Phe Cys Met Cys Arg Cys Cys Asn Lys Cys Gly Gly Glu Met  
 130 135 140  
 His Gln Arg Gln Lys Gln Asn Ala Pro Cys Arg Arg Lys Cys Leu Gly  
 145 150 155 160  
 Leu Ser Leu Leu Val Ile Cys Leu Leu Met Ser Leu Gly Ile Ile Tyr  
 165 170 175

Gly Phe Val Ala Asn Gln Gln Thr Arg Thr Arg Ile Lys Gly Thr Gln  
 180 185 190  
 Lys Leu Ala Lys Ser Asn Phe Arg Asp Phe Gln Thr Leu Leu Thr Glu  
 195 200 205  
 Thr Pro Lys Gln Ile Asp Tyr Val Val Glu Gln Tyr Thr Asn Thr Lys  
 210 215 220  
 Asn Lys Ala Phe Ser Asp Leu Asp Gly Ile Gly Ser Val Leu Gly Gly  
 225 230 235 240  
 Arg Ile Lys Asp Gln Leu Lys Pro Lys Val Thr Pro Val Leu Glu Glu  
 245 250 255  
 Ile Lys Ala Met Ala Thr Ala Ile Lys Gln Thr Lys Asp Ala Leu Gln  
 260 265 270  
 Asn Met Ser Ser Ser Leu Lys Ser Leu Gln Asp Ala Ala Thr Gln Leu  
 275 280 285  
 Asn Thr Asn Leu Ser Ser Val Arg Asn Ser Ile Glu Asn Ser Leu Ser  
 290 295 300  
 Ser Ser Asp Cys Thr Ser Asp Pro Ala Ser Lys Ile Cys Asp Ser Ile  
 305 310 315 320  
 Arg Pro Ser Leu Ser Ser Leu Gly Ser Ser Leu Asn Ser Ser Gln Leu  
 325 330 335  
 Pro Ser Val Asp Arg Glu Leu Asn Thr Val Thr Glu Val Asp Lys Thr  
 340 345 350  
 Asp Leu Glu Ser Leu Val Lys Arg Gly Tyr Thr Thr Ile Asp Glu Ile  
 355 360 365  
 Pro Asn Thr Ile Gln Asn Gln Thr Val Asp Val Ile Lys Asp Val Lys  
 370 375 380  
 Asn Thr Leu Asp Ser Ile Ser Ser Asn Ile Lys Asp Met Ser Gln Ser  
 385 390 395 400  
 Ile Pro Ile Glu Asp Met Leu Leu Gln Val Ser His Tyr Leu Asn Asn  
 405 410 415  
 Ser Asn Arg Tyr Leu Asn Gln Glu Leu Pro Lys Leu Glu Glu Tyr Asp  
 420 425 430  
 Ser Tyr Trp Trp Leu Gly Gly Leu Ile Val Cys Phe Leu Leu Thr Leu  
 435 440 445  
 Ile Val Thr Phe Phe Phe Leu Gly Leu Leu Cys Gly Val Phe Gly Tyr  
 450 455 460  
 Asp Lys His Ala Thr Pro Thr Arg Arg Gly Cys Val Ser Asn Thr Gly  
 465 470 475 480  
 Gly Ile Phe Leu Met Ala Gly Val Gly Phe Gly Phe Leu Phe Cys Trp  
 485 490 495  
 Ile Leu Met Ile Leu Val Val Leu Thr Phe Val Val Gly Ala Asn Val

500					505					510						
Glu	Lys	Leu	Leu	Cys	Glu	Pro	Tyr	Glu	Asn	Lys	Lys	Leu	Leu	Gln	Val	
515					520					525						
Leu	Asp	Thr	Pro	Tyr	Leu	Leu	Lys	Glu	Gln	Trp	Gln	Phe	Tyr	Leu	Ser	
530					535					540						
Gly	Met	Leu	Phe	Asn	Asn	Pro	Asp	Ile	Asn	Met	Thr	Phe	Glu	Gln	Val	
545					550					555					560	
Tyr	Arg	Asp	Cys	Lys	Arg	Gly	Arg	Gly	Ile	Tyr	Ala	Ala	Phe	Gln	Leu	
565					570					575						
Glu	Asn	Val	Val	Asn	Val	Ser	Asp	His	Phe	Asn	Ile	Asp	Gln	Ile	Ser	
580					585					590						
Glu	Asn	Ile	Asn	Thr	Glu	Leu	Glu	Asn	Leu	Asn	Val	Asn	Ile	Asp	Ser	
595					600					605						
Ile	Glu	Leu	Leu	Asp	Asn	Thr	Gly	Arg	Lys	Ser	Leu	Glu	Asp	Phe	Ala	
610					615					620						
His	Ser	Gly	Ile	Asp	Thr	Ile	Asp	Tyr	Ser	Thr	Tyr	Leu	Lys	Glu	Thr	
625					630					635					640	
Glu	Lys	Ser	Pro	Thr	Glu	Val	Asn	Leu	Leu	Thr	Phe	Ala	Ser	Thr	Leu	
645					650					655						
Glu	Ala	Lys	Ala	Asn	Gln	Leu	Pro	Glu	Gly	Lys	Pro	Lys	Gln	Ala	Phe	
660					665					670						
Leu	Leu	Asp	Val	Gln	Asn	Ile	Arg	Ala	Ile	His	Gln	His	Leu	Leu	Pro	
675					680					685						
Pro	Val	Gln	Gln	Ser	Leu	Asn	Thr	Leu	Arg	Gln	Ser	Val	Trp	Thr	Leu	
690					695					700						
Gln	Gln	Thr	Ser	Asn	Lys	Leu	Pro	Glu	Lys	Val	Lys	Lys	Ile	Leu	Ala	
705					710					715					720	
Ser	Leu	Asp	Ser	Val	Gln	His	Phe	Leu	Thr	Asn	Asn	Val	Ser	Leu	Ile	
725					730					735						
Val	Ile	Gly	Glu	Thr	Lys	Lys	Phe	Gly	Lys	Thr	Ile	Leu	Gly	Tyr	Phe	
740					745					750						
Glu	His	Tyr	Leu	His	Trp	Val	Phe	Tyr	Ala	Ile	Thr	Glu	Lys	Met	Thr	
755					760					765						
Ser	Cys	Lys	Pro	Met	Ala	Thr	Ala	Met	Asp	Ser	Ala	Val	Asn	Gly	Ile	
770					775					780						
Leu	Cys	Gly	Tyr	Val	Ala	Asp	Pro	Leu	Asn	Leu	Phe	Trp	Phe	Gly	Ile	
785					790					795					800	
Gly	Lys	Ala	Thr	Val	Leu	Leu	Leu	Pro	Ala	Val	Ile	Ile	Ala	Ile	Lys	
805					810					815						
Leu	Ala	Lys	Tyr	Tyr	Arg	Arg	Met	Asp	Ser	Glu	Asp	Val	Tyr	Asp	Asp	
820					825					830						

Val Glu Thr Val Pro Met Lys Asn Leu Glu Ile Gly Ser Asn Gly Tyr  
 835 840 845  
 His Lys Asp His Leu Tyr Gly Val His Asn Pro Val Met Thr Ser Pro  
 850 855 860  
 Ser Arg Tyr  
 865  
 <210> 135  
 <211> 858  
 <212> PRT  
 <213> Mus musculus  
 <400> 135  
 Met Ala Leu Val Phe Ser Ala Leu Leu Leu Leu Gly Leu Cys Gly Lys  
 1 5 10 15  
 Ile Ser Ser Glu Gly Gln Pro Ala Phe His Asn Thr Pro Gly Ala Met  
 20 25 30  
 Asn Tyr Glu Leu Pro Thr Thr Lys Tyr Glu Thr Gln Asp Thr Phe Asn  
 35 40 45  
 Ala Gly Ile Val Gly Pro Leu Tyr Lys Met Val His Ile Phe Leu Asn  
 50 55 60  
 Val Val Gln Pro Asn Asp Phe Pro Leu Asp Leu Ile Lys Lys Leu Ile  
 65 70 75 80  
 Gln Asn Lys Asn Phe Asp Ile Ser Val Asp Ser Lys Glu Ile Ala Leu  
 85 90 95  
 Tyr Glu Ile Gly Val Leu Ile Cys Ala Ile Leu Gly Leu Leu Phe Ile  
 100 105 110  
 Ile Leu Met Pro Leu Val Gly Cys Phe Phe Cys Met Cys Arg Cys Cys  
 115 120 125  
 Asn Lys Cys Gly Gly Glu Met His Gln Arg Gln Lys Gln Asn Ala Pro  
 130 135 140  
 Cys Arg Arg Lys Cys Leu Gly Leu Ser Leu Leu Val Ile Cys Leu Leu  
 145 150 155 160  
 Met Ser Leu Gly Ile Ile Tyr Gly Phe Val Ala Asn Gln Gln Thr Arg  
 165 170 175  
 Thr Arg Ile Lys Gly Thr Gln Lys Leu Ala Lys Ser Asn Phe Arg Asp  
 180 185 190  
 Phe Gln Thr Leu Leu Thr Glu Thr Pro Lys Gln Ile Asp Tyr Val Val  
 195 200 205  
 Glu Gln Tyr Thr Asn Thr Lys Asn Lys Ala Phe Ser Asp Leu Asp Gly  
 210 215 220  
 Ile Gly Ser Val Leu Gly Gly Arg Ile Lys Asp Gln Leu Lys Pro Lys  
 225 230 235 240  
 Val Thr Pro Val Leu Glu Glu Ile Lys Ala Met Ala Thr Ala Ile Lys

245					250					255						
Gln	Thr	Lys	Asp	Ala	Leu	Gln	Asn	Met	Ser	Ser	Ser	Leu	Lys	Ser	Leu	
260					265					270						
Gln	Asp	Ala	Ala	Thr	Gln	Leu	Asn	Thr	Asn	Leu	Ser	Ser	Val	Arg	Asn	
275					280					285						
Ser	Ile	Glu	Asn	Ser	Leu	Ser	Ser	Ser	Asp	Cys	Thr	Ser	Asp	Pro	Ala	
290					295					300						
Ser	Lys	Ile	Cys	Asp	Ser	Ile	Arg	Pro	Ser	Leu	Ser	Ser	Leu	Gly	Ser	
305					310					315					320	
Ser	Leu	Asn	Ser	Ser	Gln	Leu	Pro	Ser	Val	Asp	Arg	Glu	Leu	Asn	Thr	
325					330					335						
Val	Thr	Glu	Val	Asp	Lys	Thr	Asp	Leu	Glu	Ser	Leu	Val	Lys	Arg	Gly	
340					345					350						
Tyr	Thr	Thr	Ile	Asp	Glu	Ile	Pro	Asn	Thr	Ile	Gln	Asn	Gln	Thr	Val	
355					360					365						
Asp	Val	Ile	Lys	Asp	Val	Lys	Asn	Thr	Leu	Asp	Ser	Ile	Ser	Ser	Asn	
370					375					380						
Ile	Lys	Asp	Met	Ser	Gln	Ser	Ile	Pro	Ile	Glu	Asp	Met	Leu	Leu	Gln	
385					390					395					400	
Val	Ser	His	Tyr	Leu	Asn	Asn	Ser	Asn	Arg	Tyr	Leu	Asn	Gln	Glu	Leu	
405					410					415						
Pro	Lys	Leu	Glu	Glu	Tyr	Asp	Ser	Tyr	Trp	Trp	Leu	Gly	Gly	Leu	Ile	
420					425					430						
Val	Cys	Phe	Leu	Leu	Thr	Leu	Ile	Val	Thr	Phe	Phe	Phe	Leu	Gly	Leu	
435					440					445						
Leu	Cys	Gly	Val	Phe	Gly	Tyr	Asp	Lys	His	Ala	Thr	Pro	Thr	Arg	Arg	
450					455					460						
Gly	Cys	Val	Ser	Asn	Thr	Gly	Gly	Ile	Phe	Leu	Met	Ala	Gly	Val	Gly	
465					470					475					480	
Phe	Gly	Phe	Leu	Phe	Cys	Trp	Ile	Leu	Met	Ile	Leu	Val	Val	Leu	Thr	
485					490					495						
Phe	Val	Val	Gly	Ala	Asn	Val	Glu	Lys	Leu	Leu	Cys	Glu	Pro	Tyr	Glu	
500					505					510						
Asn	Lys	Lys	Leu	Leu	Gln	Val	Leu	Asp	Thr	Pro	Tyr	Leu	Leu	Lys	Glu	
515					520					525						
Gln	Trp	Gln	Phe	Tyr	Leu	Ser	Gly	Met	Leu	Phe	Asn	Asn	Pro	Asp	Ile	
530					535					540						
Asn	Met	Thr	Phe	Glu	Gln	Val	Tyr	Arg	Asp	Cys	Lys	Arg	Gly	Arg	Gly	
545					550					555					560	
Ile	Tyr	Ala	Ala	Phe	Gln	Leu	Glu	Asn	Val	Val	Asn	Val	Ser	Asp	His	
565					570					575						



Phe Asn Ile Asp Gln Ile Ser Glu Asn Ile Asn Thr Glu Leu Glu Asn  
 580 585 590  
 Leu Asn Val Asn Ile Asp Ser Ile Glu Leu Leu Asp Asn Thr Gly Arg  
 595 600 605  
 Lys Ser Leu Glu Asp Phe Ala His Ser Gly Ile Asp Thr Ile Asp Tyr  
 610 615 620  
 Ser Thr Tyr Leu Lys Glu Thr Glu Lys Ser Pro Thr Glu Val Asn Leu  
 625 630 635 640  
 Leu Thr Phe Ala Ser Thr Leu Glu Ala Lys Ala Asn Gln Leu Pro Glu  
 645 650 655  
 Gly Lys Leu Lys Gln Ala Phe Leu Leu Asp Val Gln Asn Ile Arg Ala  
 660 665 670  
 Ile His Gln His Leu Leu Pro Pro Val Gln Gln Ser Leu Asn Thr Leu  
 675 680 685  
 Arg Gln Ser Val Trp Thr Leu Gln Gln Thr Ser Asn Lys Leu Pro Glu  
 690 695 700  
 Lys Val Lys Lys Ile Leu Ala Ser Leu Asp Ser Val Gln His Phe Leu  
 705 710 715 720  
 Thr Asn Asn Val Ser Leu Ile Val Ile Gly Glu Thr Lys Lys Phe Gly  
 725 730 735  
 Lys Thr Ile Leu Gly Tyr Phe Glu His Tyr Leu His Trp Val Phe Tyr  
 740 745 750  
 Ala Ile Thr Glu Lys Met Thr Ser Cys Lys Pro Met Ala Thr Ala Met  
 755 760 765  
 Asp Ser Ala Val Asn Gly Ile Leu Cys Gly Tyr Val Ala Asp Pro Leu  
 770 775 780  
 Asn Leu Phe Trp Phe Gly Ile Gly Lys Ala Thr Val Leu Leu Leu Pro  
 785 790 795 800  
 Ala Val Ile Ile Ala Ile Lys Leu Ala Lys Tyr Tyr Arg Arg Met Asp  
 805 810 815  
 Ser Glu Asp Val Tyr Asp Asp Val Glu Thr Val Pro Met Lys Asn Leu  
 820 825 830  
 Glu Ile Asp Ser Asn Gly Tyr His Lys Asp His Leu Tyr Gly Val His  
 835 840 845  
 Asn Pro Val Met Thr Ser Pro Ser Arg Tyr  
 850 855

<210> 136

<211> 417

<212> PRT

<213> Homo sapiens

<400> 136

Met Ala Gln Lys Glu Gly Gly Arg Thr Val Pro Lys Lys Ser Arg Pro

1	5	10	15
Lys Val Ala Ala Leu Thr Ala Gly Thr Leu Leu Leu Leu Thr Ala Ile	20	25	30
Gly Ala Ala Ser Trp Ala Ile Val Ala Val Leu Leu Arg Ser Asp Gln	35	40	45
Glu Pro Leu Tyr Pro Val Gln Val Ser Ser Ala Asp Ala Arg Leu Met	50	55	60
Val Phe Asp Lys Thr Glu Gly Thr Trp Arg Leu Leu Cys Ser Ser Arg	65	70	75
Ser Asn Ala Arg Val Ala Gly Leu Ser Cys Glu Glu Met Gly Phe Leu	85	90	95
Arg Ala Leu Thr His Ser Glu Leu Asp Val Arg Thr Ala Gly Ala Asn	100	105	110
Gly Thr Ser Gly Phe Phe Cys Val Asp Glu Gly Arg Leu Pro His Thr	115	120	125
Gln Arg Leu Leu Glu Val Ile Ser Val Cys Asp Cys Pro Arg Gly Arg	130	135	140
Phe Leu Ala Ala Ile Cys Gln Asp Cys Gly Arg Arg Lys Leu Pro Val	145	150	155
Asp Arg Ile Val Gly Gly Arg Asp Thr Ser Leu Gly Arg Trp Pro Trp	165	170	175
Gln Val Ser Leu Arg Tyr Asp Gly Ala His Leu Cys Gly Gly Ser Leu	180	185	190
Leu Ser Gly Asp Trp Val Leu Thr Ala Ala His Cys Phe Pro Glu Arg	195	200	205
Asn Arg Val Leu Ser Arg Trp Arg Val Phe Ala Gly Ala Val Ala Gln	210	215	220
Ala Ser Pro His Gly Leu Gln Leu Gly Val Gln Ala Val Val Tyr His	225	230	235
Gly Gly Tyr Leu Pro Phe Arg Asp Pro Asn Ser Glu Glu Asn Ser Asn	245	250	255
Asp Ile Ala Leu Val His Leu Ser Ser Pro Leu Pro Leu Thr Glu Tyr	260	265	270
Ile Gln Pro Val Cys Leu Pro Ala Ala Gly Gln Ala Leu Val Asp Gly	275	280	285
Lys Ile Cys Thr Val Thr Gly Trp Gly Asn Thr Gln Tyr Tyr Gly Gln	290	295	300
Gln Ala Gly Val Leu Gln Glu Ala Arg Val Pro Ile Ile Ser Asn Asp	305	310	315
Val Cys Asn Gly Ala Asp Phe Tyr Gly Asn Gln Ile Lys Pro Lys Met	325	330	335

Phe Cys Ala Gly Tyr Pro Glu Gly Gly Ile Asp Ala Cys Gln Gly Asp  
 340 345 350  
 Ser Gly Gly Pro Phe Val Cys Glu Asp Ser Ile Ser Arg Thr Pro Arg  
 355 360 365  
 Trp Arg Leu Cys Gly Ile Val Ser Trp Gly Thr Gly Cys Ala Leu Ala  
 370 375 380  
 Gln Lys Pro Gly Val Tyr Thr Lys Val Ser Asp Phe Arg Glu Trp Ile  
 385 390 395 400  
 Phe Gln Ala Ile Lys Thr His Ser Glu Ala Ser Gly Met Val Thr Gln  
 405 410 415

Leu

<210> 137  
 <211> 416  
 <212> PRT  
 <213> Rattus norvegicus

<400> 137  
 Met Ala Lys Glu Gly Gly Arg Thr Ala Pro Cys Cys Ser Arg Pro Lys  
 1 5 10 15  
 Val Ala Ala Leu Thr Val Gly Thr Leu Leu Phe Leu Thr Gly Ile Gly  
 20 25 30  
 Ala Ala Ser Trp Ala Ile Val Thr Ile Leu Leu Arg Ser Asp Gln Glu  
 35 40 45  
 Pro Leu Tyr Gln Val Gln Leu Ser Pro Gly Asp Ser Arg Leu Leu Val  
 50 55 60  
 Leu Asp Lys Thr Glu Gly Thr Trp Arg Leu Leu Cys Ser Ser Arg Ser  
 65 70 75 80  
 Asn Ala Arg Val Ala Gly Leu Gly Cys Glu Glu Met Gly Phe Leu Arg  
 85 90 95  
 Ala Leu Ala His Ser Glu Leu Asp Val Arg Thr Ala Gly Ala Asn Gly  
 100 105 110  
 Thr Ser Gly Phe Phe Cys Val Asp Glu Gly Gly Leu Pro Leu Ala Gln  
 115 120 125  
 Arg Leu Leu Asp Val Ile Ser Val Cys Asp Cys Pro Arg Gly Arg Phe  
 130 135 140  
 Leu Thr Ala Thr Cys Gln Asp Cys Gly Arg Arg Lys Leu Pro Val Asp  
 145 150 155 160  
 Arg Ile Val Gly Gly Gln Asp Ser Ser Leu Gly Arg Trp Pro Trp Gln  
 165 170 175  
 Val Ser Leu Arg Tyr Asp Gly Thr His Leu Cys Gly Gly Ser Leu Leu  
 180 185 190  
 Ser Gly Asp Trp Val Leu Thr Ala Ala His Cys Phe Pro Glu Arg Asn

195	200	205
Arg Val Leu Ser Arg Trp	Arg Val Phe Ala Gly	Ala Val Ala Arg Thr
210	215	220
Ser Pro His Ala Val Gln Leu Gly Val Gln Ala Val Ile Tyr His Gly		
225	230	235 240
Gly Tyr Leu Pro Phe Arg Asp Pro Thr Ile Asp Glu Asn Ser Asn Asp		
	245	250 255
Ile Ala Leu Val His Leu Ser Ser Ser Leu Pro Leu Thr Glu Tyr Ile		
	260	265 270
Gln Pro Val Cys Leu Pro Ala Ala Gly Gln Ala Leu Val Asp Gly Lys		
	275	280 285
Val Cys Thr Val Thr Gly Trp Gly Asn Thr Gln Phe Tyr Gly Gln Gln		
	290	295 300
Ala Val Val Leu Gln Glu Ala Arg Val Pro Ile Ile Ser Asn Glu Val		
	305	310 315 320
Cys Asn Ser Pro Asp Phe Tyr Gly Asn Gln Ile Lys Pro Lys Met Phe		
	325	330 335
Cys Ala Gly Tyr Pro Glu Gly Gly Ile Asp Ala Cys Gln Gly Asp Ser		
	340	345 350
Gly Gly His Phe Val Cys Glu Asp Arg Ile Ser Gly Thr Ser Arg Trp		
	355	360 365
Arg Leu Cys Gly Ile Val Ser Trp Gly Thr Gly Cys Ala Leu Ala Arg		
	370	375 380
Lys Pro Gly Val Tyr Thr Lys Val Ile Asp Phe Arg Glu Trp Ile Phe		
	385	390 395 400
Gln Ala Ile Lys Thr His Ser Glu Ala Thr Gly Met Val Thr Gln Pro		
	405	410 415

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 <211> 416  
 <212> PRT  
 <213> Mus musculus

<400> 138  
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 35 40 45  
 Pro Leu Tyr Gln Val Gln Leu Ser Pro Gly Asp Ser Arg Leu Ala Val  
 50 55 60

Leu Asp Lys Thr Glu Gly Thr Trp Arg Leu Leu Cys Ser Ser Arg Ser  
 65 70 75 80  
 Asn Ala Arg Val Ala Gly Leu Gly Cys Glu Glu Met Gly Phe Leu Arg  
 85 90 95  
 Ala Leu Ala His Ser Glu Leu Asp Val Arg Thr Ala Gly Ala Asn Gly  
 100 105 110  
 Thr Ser Gly Phe Phe Cys Val Asp Glu Gly Gly Leu Pro Leu Ala Gln  
 115 120 125  
 Arg Leu Leu Asp Val Ile Ser Val Cys Asp Cys Pro Arg Gly Arg Phe  
 130 135 140  
 Leu Thr Ala Thr Cys Gln Asp Cys Gly Arg Arg Lys Leu Pro Val Asp  
 145 150 155 160  
 Arg Ile Val Gly Gly Gln Asp Ser Ser Leu Gly Arg Trp Pro Trp Gln  
 165 170 175  
 Val Ser Leu Arg Tyr Asp Gly Thr His Leu Cys Gly Gly Ser Leu Leu  
 180 185 190  
 Ser Gly Asp Trp Val Leu Thr Ala Ala His Cys Phe Pro Glu Arg Asn  
 195 200 205  
 Arg Val Leu Ser Arg Trp Arg Val Phe Ala Gly Ala Val Ala Arg Thr  
 210 215 220  
 Ser Pro His Ala Val Gln Leu Gly Val Gln Ala Val Ile Tyr His Gly  
 225 230 235 240  
 Gly Tyr Leu Pro Phe Arg Asp Pro Thr Ile Asp Glu Asn Ser Asn Asp  
 245 250 255  
 Ile Ala Leu Val His Leu Ser Ser Ser Leu Pro Leu Thr Glu Tyr Ile  
 260 265 270  
 Gln Pro Val Cys Leu Pro Ala Ala Gly Gln Ala Leu Val Asp Gly Lys  
 275 280 285  
 Val Cys Thr Val Thr Gly Trp Gly Asn Thr Gln Phe Tyr Gly Gln Gln  
 290 295 300  
 Ala Met Val Leu Gln Glu Ala Arg Val Pro Ile Ile Ser Asn Glu Val  
 305 310 315 320  
 Cys Asn Ser Pro Asp Phe Tyr Gly Asn Gln Ile Lys Pro Lys Met Phe  
 325 330 335  
 Cys Ala Gly Tyr Pro Glu Gly Gly Ile Asp Ala Cys Gln Gly Asp Ser  
 340 345 350  
 Gly Gly Pro Phe Val Cys Glu Asp Ser Ile Ser Gly Thr Ser Arg Trp  
 355 360 365  
 Arg Leu Cys Gly Ile Val Ser Trp Gly Thr Gly Cys Ala Leu Ala Arg  
 370 375 380  
 Lys Pro Gly Val Tyr Thr Lys Val Thr Asp Phe Arg Glu Trp Ile Phe



Arg Leu Cys Gly Ile Val Ser Trp Gly Thr Gly Cys Ala Leu Ala Gln  
 260 265 270

Lys Pro Gly Val Tyr Thr Lys Val Ser Asp Phe Arg Glu Trp Ile Phe  
 275 280 285

Gln Ala Ile Lys Thr His Ser Glu Ala Ser Gly Met Val Thr Gln Leu  
 290 295 300

<210> 140

<211> 502

<212> PRT

<213> Mus musculus

<400> 140

Arg Pro Gln Leu Gly Arg Pro His Ala Ala Gly Cys Cys Cys His Pro  
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Cys Leu Pro Gly Cys Pro Leu Leu Trp Gly Gln Thr Pro Cys Pro Cys  
 20 25 30

Pro Gly Pro Glu Thr Asn Pro Lys Pro Ala Pro Ser Pro Ala Asn Pro  
 35 40 45

Arg Val Pro Pro Gln Pro Asn Arg Ser Thr Trp Glu Ser Leu Thr Arg  
 50 55 60

Val Pro Asp Met Ala Lys Glu Asp Glu Glu Pro Gly Ala His Arg Gly  
 65 70 75 80

Gly Ser Thr Cys Ser Arg Pro Gln Pro Gly Lys Gly Gly Arg Thr Ala  
 85 90 95

Ala Cys Cys Ser Arg Pro Lys Val Ala Ala Leu Ile Val Gly Thr Leu  
 100 105 110

Leu Phe Leu Thr Gly Ile Gly Ala Ala Ser Trp Ala Ile Val Thr Ile  
 115 120 125

Leu Leu Gln Ser Asp Gln Glu Pro Leu Tyr Gln Val Gln Leu Ser Pro  
 130 135 140

Gly Asp Ser Arg Leu Ala Val Phe Asp Lys Thr Glu Gly Thr Trp Arg  
 145 150 155 160

Leu Leu Cys Ser Ser Arg Ser Asn Ala Arg Val Ala Gly Leu Gly Cys  
 165 170 175

Glu Glu Met Gly Phe Leu Arg Ala Leu Ala His Ser Glu Leu Asp Val  
 180 185 190

Arg Thr Ala Gly Ala Asn Gly Thr Ser Gly Phe Phe Cys Val Asp Glu  
 195 200 205

Gly Gly Leu Pro Leu Ala Gln Arg Leu Leu Asp Val Ile Ser Val Cys  
 210 215 220

Asp Cys Pro Arg Gly Arg Phe Leu Thr Ala Thr Cys Gln Asp Cys Gly  
 225 230 235 240  
 Arg Arg Ser Cys Arg Trp Thr Ala Leu Trp Gly Ala Arg Thr Ala Val  
 245 250 255  
 Trp Glu Gly Gly Arg Gly Arg Ser Ala Cys Val Met Met Gly Thr Thr  
 260 265 270  
 Ser Val Gly Gly Pro Ala Val Ser Gly Leu Gly Ala Asp Cys Cys Thr  
 275 280 285  
 Leu Leu Ser Arg Ala Gly Asp Gly Pro Val Ser Val Ala Ser Ile Cys  
 290 295 300  
 Trp Cys Cys Ser Pro Asp Leu Thr Pro Cys Cys Ala Thr Gly Val Gln  
 305 310 315 320  
 Ala Val Ile Tyr His Gly Gly Tyr Leu Leu Phe Arg Asp Pro Thr Ile  
 325 330 335  
 Asp Glu Asn Ser Asn Asp Ile Ala Leu Val Asn Leu Ser Ser Ser Leu  
 340 345 350  
 Pro Leu Thr Glu Tyr Ile Gln Pro Val Cys Leu Pro Ala Ala Gly Gln  
 355 360 365  
 Ala Leu Val Asp Gly Lys Val Cys Thr Val Thr Gly Trp Gly Asn Thr  
 370 375 380  
 Gln Phe Tyr Gly Gln Gln Ala Met Val Leu Gln Glu Ala Arg Val Pro  
 385 390 395 400  
 Ile Ile Ser Asn Glu Val Cys Asn Ser Pro Asp Phe Tyr Gly Asn Gln  
 405 410 415  
 Ile Lys Pro Lys Met Phe Cys Ala Gly Tyr Pro Glu Gly Gly Ile Asp  
 420 425 430  
 Ala Cys Gln Gly Asp Ser Gly Gly Pro Phe Val Cys Glu Asp Ser Ile  
 435 440 445  
 Ser Gly Thr Ser Arg Trp Arg Leu Cys Gly Ile Val Ser Trp Gly Thr  
 450 455 460  
 Gly Cys Ala Leu Ala Arg Lys Pro Gly Val Tyr Thr Lys Val Thr Asp  
 465 470 475 480  
 Phe Arg Glu Trp Ile Phe Lys Ala Ile Lys Thr His Ser Glu Ala Ser  
 485 490 495  
 Gly Met Val Thr Gln Pro  
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<210> 141

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:oligonucleotide



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    primer

<400> 141
tgcaaatga acaaccagac ta                                22

<210> 142
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
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<400> 142
atccccgcgcg tggagatctt cat                                23

<210> 143
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<212> DNA
<213> Artificial Sequence

<220>
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<400> 143
ccagcagcat aaagatcttc ac                                22

<210> 144
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:oligonucleotide
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<400> 144
cttgaagttc tcacaccttt gc                                22

<210> 145
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:oligonucleotide
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<400> 145
tcataacagt tactgcatca acggtg                                26

<210> 146
<211> 19
<212> DNA
<213> Artificial Sequence

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<220>  
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<211> 23  
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 gtgtctgtga gaggcagcta tc 22  
  
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 <400> 155  
 ccccaaaagc tacattttga ta 22

<210> 156  
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 <400> 156  
 aggatccagg aaacgaagtg 20  
  
 <210> 157  
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 tctacgcgct atataagcag gccactg 27  
  
 <210> 158  
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       primer  
  
 <400> 158  
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 <210> 159  
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 <220>  
 <223> Description of Artificial Sequence:oligonucleotide  
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 gcagctggac gtcctctatc 20  
  
 <210> 160  
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<400> 160 ccagaacatg aacgggtccg aatact	26
<210> 161 <211> 20 <212> DNA <213> Artificial Sequence	
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<400> 161 ccaggaagga ctggatcttc	20
<210> 162 <211> 19 <212> DNA <213> Artificial Sequence	
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<400> 162 gccaggcact gttcatctc	19
<210> 163 <211> 25 <212> DNA <213> Artificial Sequence	
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<210> 164 <211> 22 <212> DNA <213> Artificial Sequence	
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<210> 165 <211> 22 <212> DNA <213> Artificial Sequence	

<220>  
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 primer

<400> 165  
 gagctcagac cgtgtctagg tt 22

<210> 166  
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<220>  
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<400> 166  
 cctggggtct cctgctcagc tca 23

<210> 167  
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<220>  
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<400> 167  
 gtcctctcca gaaggctett c 21

<210> 168  
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<220>  
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<400> 168  
 cccacaagag aggtatgtca ct 22

<210> 169  
 <211> 26  
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<220>  
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<400> 169  
 ttacttccca ggacatccac cctgag 26

<210> 170  
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<212> DNA  
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 ttactgggta ggattcgctt tt 22  
  
  
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 aaatcctcca gggacacagc ccatt 25  
  
  
 <210> 173  
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 tcctgaacag gtacctgagc ta 22

<210> 175  
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 caatgacggtt gttgtaatg c 21  
  
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 <400> 177  
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 <210> 178  
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       primer  
  
 <400> 178  
 aagcaggacg ccacctctac catcat 26  
  
 <210> 179  
 <211> 21  
 <212> DNA  
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 <220>  
 <223> Description of Artificial Sequence:oligonucleotide  
       primer



<400> 179  
 caatgacggtt gttggtaatg c 21

<210> 180  
 <211> 22  
 <212> DNA  
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<220>  
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<400> 180  
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<210> 181  
 <211> 26  
 <212> DNA  
 <213> Artificial Sequence

<220>  
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<400> 181  
 cctcctgagg taacagcaag tcccat 26

<210> 182  
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<220>  
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<400> 182  
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<210> 183  
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 <212> DNA  
 <213> Artificial Sequence

<220>  
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<400> 183  
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<210> 184  
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<220>

<223> Description of Artificial Sequence:oligonucleotide primer

<400> 184  
tgcaacaact ttcaaggtcc ttgctg 26

<210> 185  
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<400> 185  
agcacaaggt tgagcacttt c 21

<210> 186  
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<220>  
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<400> 186  
cataatggaa acaggacctg aa 22

<210> 187  
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<220>  
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<400> 187  
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<210> 188  
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<220>  
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<400> 188  
aggtcctggg agggaatgct 20

<210> 189  
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 <400> 189  
 cccattcagc ttcacagaga 20

<210> 190  
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 <400> 190  
 cagatcctgg cattctctca gaagctg 27

<210> 191  
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 <400> 191  
 atgctcactg tctgttcctt gt 22

<210> 192  
 <211> 20  
 <212> DNA  
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 <223> Description of Artificial Sequence:oligonucleotide  
 primer  
 <400> 192  
 ggtccaacag ggctatcaat 20

<210> 193  
 <211> 26  
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 primer  
 <400> 193  
 ccaaaccacg actgtcgtag caggta 26

<210> 194  
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 <223> Description of Artificial Sequence:oligonucleotide  
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<210> 195  
 <211> 20  
 <212> DNA  
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 <220>  
 <223> Description of Artificial Sequence:oligonucleotide  
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 <400> 195  
 cacgcactgc cactataagg 20

<210> 196  
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 <220>  
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       primer  
  
 <400> 196  
 cttgcacatg actaagacgg acccct 26

<210> 197  
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 <223> Description of Artificial Sequence:oligonucleotide  
       primer  
  
 <400> 197  
 ctagaggtgt gtggggttct c 21

<210> 198  
 <211> 20  
 <212> DNA  
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       primer  
  
 <400> 198

cacgcactgc cactataagg	20
<210> 199	
<211> 26	
<212> DNA	
<213> Artificial Sequence	
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<223> Description of Artificial Sequence:oligonucleotide primer	
<400> 199	
cttgacatg actaagacgg acccct	26
<210> 200	
<211> 21	
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<400> 200	
ctagaggtgt gtggggttct c	21
<210> 201	
<211> 22	
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cccgaagagg ctttatgtat tc	22
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cagaaacaca aatgaaaatc ctcagga	27
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    primer

<400> 203
tgtcagtagc tttgatgcat tg                                22

<210> 204
<211> 22
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<220>
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      primer

<400> 204
gcttttgggt tttggaatta tg                                22

<210> 205
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      primer

<400> 205
tccataattg aacataaaat cgtgtttcg                        29

<210> 206
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<212> DNA
<213> Artificial Sequence

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<400> 206
gtggtgatga tggagaattg aa                                22

<210> 207
<211> 22
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<213> Artificial Sequence

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      primer

<400> 207
aggacagaac acctaggtgc tt                                22

<210> 208
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<400> 223  
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<400> 224  
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<400> 226  
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<400> 242  
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<210> 243  
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<400> 243  
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<210> 244  
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<400> 244  
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<210> 245  
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<400> 245  
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<210> 246  
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<223> Description of Artificial Sequence:oligonucleotide  
primer

<400> 246  
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<210> 247  
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<400> 247  
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<210> 248  
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primer

<400> 248  
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<210> 251  
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<400> 251  
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<210> 252  
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<210> 253  
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<400> 253  
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<210> 254  
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<400> 254  
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<210> 255  
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<220>  
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<400> 255  
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<210> 261  
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<400> 261  
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<210> 262  
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<400> 262  
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<400> 263  
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<210> 264  
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<400> 264  
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<400> 265  
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<210> 266  
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primer

<400> 266  
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<210> 267  
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primer

<400> 267  
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<400> 268  
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primer

<400> 269  
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<210> 280  
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<400> 285  
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<400> 286  
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<210> 287  
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<400> 287  
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<400> 288  
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<210> 292  
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<210> 294  
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<212> DNA  
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<210> 299  
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<220>  
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 20 25 30  
 Tyr Lys Asp Gly Arg Ser Leu Leu Ile Gln Cys Val Cys Cys Tyr Pro  
 35 40 45  
 Asp Val Thr Tyr Glu Thr Lys Val Leu Pro Gly Cys Pro Pro Gly Val  
 50 55 60  
 Asp Pro Thr Lys Thr Tyr Pro Val Ala Leu Ser Cys His Cys Gly Lys  
 65 70 75 80  
 Cys Asn Thr Asp Asn Thr Asp Cys Thr Arg Leu Ser Leu Gln Pro Asp  
 85 90 95  
 Ser

<210> 300  
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<220>  
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 sequence

<400> 300  
 Leu Gln Glu Gln Phe Glu Ala Ala Ala Glu Lys Val Lys Lys Leu Lys  
 1 5 10 15  
 Lys Asn Pro Ser Asn Asp Glu Leu Leu Gln Leu Tyr Ser Leu Tyr Lys  
 20 25 30  
 Gln Ala Thr Val Gly Asp Cys Asn Thr Glu Lys Pro Gly Met Phe Asp  
 35 40 45  
 Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Met  
 50 55 60  
 Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys  
 65 70 75

<210> 301  
 <211> 393  
 <212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:consensus  
sequence

<400> 301

Leu	Pro	Thr	Asn	Val	Val	Pro	Ile	His	Tyr	Asp	Leu	Arg	Leu	Thr	Pro
1				5					10					15	
Phe	Leu	Pro	Glu	Lys	Pro	Thr	Phe	Ser	Gly	Ser	Val	Thr	Ile	Thr	Leu
			20					25					30		
Gln	Ala	Thr	Ile	Ala	Gly	Thr	Asp	Glu	Ile	Val	Leu	His	Ala	Lys	Asp
		35					40					45			
Leu	Thr	Ile	Ser	Ser	Val	Thr	Leu	Val	Gly	Val	Asn	Gly	Ser	Thr	Pro
	50					55					60				
Glu	Ser	Val	Glu	Phe	Ser	Leu	Gln	Asp	Glu	Thr	Gln	Lys	Leu	Thr	Ile
65					70					75					80
Thr	Leu	Pro	Gln	Ser	Leu	Ser	Ala	Gly	Gln	Gln	Tyr	Thr	Leu	Glu	Ile
				85					90					95	
Asp	Tyr	Thr	Gly	Lys	Ile	Ser	Asp	Ser	Met	Leu	Gly	Phe	Tyr	Arg	Ser
			100					105					110		
Glu	Tyr	Thr	Asp	Gly	Gly	Asp	Gly	Glu	Thr	Lys	Tyr	Met	Ala	Thr	Thr
		115					120					125			
Gln	Phe	Glu	Pro	Thr	Asp	Ala	Arg	Arg	Ala	Phe	Pro	Cys	Phe	Asp	Glu
	130					135					140				
Pro	Ser	Phe	Lys	Ala	Thr	Phe	Thr	Ile	Thr	Ile	Thr	His	Pro	Lys	Gly
145					150					155					160
Ser	Thr	Ala	Leu	Ser	Asn	Met	Pro	Val	Ile	Thr	Thr	Thr	Lys	Asp	Asp
				165					170					175	
Asp	Gly	Arg	Val	Ile	Thr	Thr	Phe	Glu	Thr	Thr	Pro	Pro	Met	Ser	Thr
			180					185					190		
Tyr	Leu	Leu	Ala	Phe	Val	Val	Gly	Asp	Leu	Thr	Tyr	Leu	Glu	Thr	Glu
	195						200					205			
Thr	Lys	Asp	Gly	Val	Pro	Val	Arg	Val	Tyr	Ala	Arg	Pro	Gly	Ala	Lys
	210					215					220				
Asn	Ala	Gly	Gln	Gly	Gln	Tyr	Ala	Leu	Asp	Val	Thr	Lys	Lys	Leu	Leu
225					230					235					240
Glu	Phe	Tyr	Glu	Glu	Tyr	Phe	Gly	Tyr	Pro	Tyr	Pro	Leu	Pro	Lys	Leu
			245						250					255	
Asp	Gln	Val	Ala	Val	Pro	Asp	Phe	Ser	Ala	Gly	Ala	Met	Glu	Asn	Trp
		260						265					270		
Gly	Leu	Ile	Thr	Tyr	Arg	Glu	Pro	Ala	Leu	Leu	Tyr	Asp	Pro	Arg	Ser
	275						280					285			
Ser	Thr	Asn	Ser	Asn	Lys	Gln	Arg	Val	Ala	Ser	Val	Ile	Ala	His	Glu

290		295		300
Leu Ala His Gln Trp Phe Gly Asn Leu Val Thr Met Lys Trp Trp Asp				
305		310		315 320
Asp Leu Trp Leu Asn Glu Gly Phe Ala Thr Tyr Leu Glu Tyr Leu Ile				
	325		330	335
Thr Asp Glu Leu Gly Gly Glu Pro Thr Trp Asn Met Glu Ala Leu Phe				
	340		345	350
Gly Leu Val Leu Gln Leu Ala Leu Ala Arg Asp Ala Leu Gly Ser Ser				
	355		360	365
His Pro Ile Thr Val Glu Val Leu Thr Pro Ser Glu Ile Ser Asp Ile				
	370		375	380
Phe Asp Ala Ile Thr Tyr Glu Lys Gly				
385		390		

<210> 302  
 <211> 45  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:consensus  
 sequence

<400> 302
Phe Gln Cys Ser Val Pro Pro Ser Glu Arg Ile Asn Cys Gly Pro Pro
1 5 10 15
Gly Ile Thr Glu Ala Glu Cys Glu Ala Arg Gly Cys Cys Phe Asp Ser
20 25 30
Ser Ile Ser Gly Val Pro Trp Cys Phe Tyr Pro Asn Thr
35 40 45

<210> 303  
 <211> 224  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:consensus  
 sequence

<400> 303
Val Ile Leu Phe Asp Leu Arg Gly Phe Gly Gln Ser Ser Pro Ser Asp
1 5 10 15
Leu Ala Glu Tyr Arg Phe Asp Asp Leu Ala Glu Asp Leu Glu Ala Leu
20 25 30
Leu Asp Ala Leu Gly Leu Asp Lys Val Ile Leu Val Gly His Ser Met
35 40 45
Gly Gly Ala Ile Ala Ala Ala Tyr Ala Ala Lys Tyr Pro Glu Arg Val
50 55 60

Lys Ala Leu Val Leu Val Ser Ala Pro His Pro Ala Leu Leu Ser Ser  
 65 70 75 80  
 Arg Leu Phe Pro Arg Asn Leu Phe Gly Leu Leu Leu Ala Asn Phe Arg  
 85 90 95  
 Asn Arg Leu Leu Arg Ser Val Glu Ala Leu Leu Gly Arg Ala Leu Lys  
 100 105 110  
 Gln Phe Phe Leu Leu Gly Arg Pro Leu Val Ser Asp Phe Leu Lys Gln  
 115 120 125  
 Phe Glu Leu Ser Ser Leu Ile Arg Phe Gly Glu Asp Asp Gly Gly Asp  
 130 135 140  
 Gly Leu Leu Trp Val Ala Leu Gly Lys Leu Leu Gln Trp Asp Val Ser  
 145 150 155 160  
 Ala Asp Leu Lys Arg Ile Lys Val Pro Thr Leu Val Ile Trp Gly Asp  
 165 170 175  
 Asp Asp Pro Leu Val Pro Pro Asp Ala Ser Glu Lys Leu Ser Ala Leu  
 180 185 190  
 Phe Pro Asn Ala Glu Val Val Val Ile Asp Asp Ala Gly His Leu Ala  
 195 200 205  
 Gln Leu Glu Lys Pro Glu Glu Val Ala Glu Leu Ile Leu Lys Phe Leu  
 210 215 220

<210> 304

<211> 255

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:consensus  
sequence

<400> 304

Trp Gly Tyr Gly Val His Asn Gly Pro Glu His Trp Pro Leu Leu Tyr  
 1 5 10 15  
 Pro Ile Ala Gly Gly Asp Arg Gln Ser Pro Ile Asn Ile Gln Thr Lys  
 20 25 30  
 Lys Ala Arg Tyr Asp Pro Ser Leu Lys Pro Leu Ser Val Ser Tyr Tyr  
 35 40 45  
 Ala Ala Thr Ala Lys Glu Ile Thr Asn Asn Gly His Ser Val Gln Val  
 50 55 60  
 Glu Phe Asp Asp Ser Met Asp Lys Ser Val Leu Ser Gly Gly Pro Leu  
 65 70 75 80  
 Pro Ala Pro Tyr Arg Leu Lys Gln Phe His Phe His Trp Gly Ser Ser  
 85 90 95

Asn Glu His Gly Ser Glu His Thr Val Asp Gly Val Lys Tyr Pro Ala  
                   100                                  105                                  110  
 Glu Leu His Leu Val His Trp Asn Ser Thr Lys Tyr Gly Ser Tyr Lys  
                   115                                  120                                  125  
 Glu Ala Gln Lys Lys Pro Asp Gly Leu Ala Val Leu Gly Val Phe Val  
                   130                                  135                                  140  
 Lys Val Gly Ala Glu Asn Pro Gly Leu Gln Lys Leu Val Asp Ala Leu  
                   145                                  150                                  155                                  160  
 Gln Asn Ile Lys Thr Lys Gly Lys Ser Ala Thr Phe Thr Asn Phe Asp  
                                   165                                  170                                  175  
 Pro Ser Asp Leu Leu Pro Ala Leu Arg Asp Tyr Trp Thr Tyr Pro Gly  
                                   180                                  185                                  190  
 Ser Leu Thr Thr Pro Pro Cys Thr Glu Ser Val Thr Trp Ile Val Leu  
                                   195                                  200                                  205  
 Lys Glu Pro Ile Thr Val Ser Ser Glu Gln Leu Glu Lys Phe Arg Ser  
                                   210                                  215                                  220  
 Leu Leu Phe Ser Val Glu Gly Glu Glu Glu Val Pro Met Val Asp Asn  
                                   225                                  230                                  235                                  240  
 Tyr Arg Pro Thr Gln Pro Leu Lys Gly Arg Val Val Arg Ala Ser  
                                   245                                  250                                  255

<210> 305

<211> 322

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:consensus  
sequence

<400> 305

Pro Leu Phe Ser Arg Asp Glu His Arg Phe Ala Arg Ser Trp Ile Ala  
   1                                  5                                  10                                  15  
 Trp Trp Ser Ala Leu Cys Phe Val Ser Thr Leu Phe Thr Val Leu Thr  
                   20                                  25                                  30  
 Phe Leu Ile Asp Trp Lys Arg Phe Arg Tyr Pro Glu Arg Pro Ile Phe  
                   35                                  40                                  45  
 Tyr Leu Ser Ala Cys Tyr Leu Ile Val Ser Val Gly Tyr Leu Ile Arg  
                   50                                  55                                  60  
 Phe Phe Leu Gly Arg Glu Glu Ile Ala Cys Arg Lys Ala Asp Gly Gly  
                   65                                  70                                  75                                  80  
 Met Arg Thr Val Thr Gln Gly Ser Thr Glu Asn Leu Ser Cys Thr Val  
                                   85                                  90                                  95  
 Leu Phe Leu Leu Val Tyr Phe Phe Gly Met Ala Ser Ser Val Trp Trp  
                   100                                  105                                  110

Val Ile Leu Thr Leu Thr Trp Phe Leu Ala Ala Gly Leu Lys Trp Gly  
 115 120 125  
 His Glu Ala Ile Glu Ala Lys Ser Ser Tyr Phe His Leu Val Ala Trp  
 130 135 140  
 Gly Leu Pro Ala Val Leu Thr Ile Thr Val Leu Ala Leu Asn Lys Val  
 145 150 155 160  
 Asp Gly Asp Pro Ile Thr Gly Ile Cys Phe Val Gly Asn Leu Asn Leu  
 165 170 175  
 Asp Ala Leu Arg Gly Phe Val Leu Ala Pro Leu Cys Val Tyr Leu Val  
 180 185 190  
 Ile Gly Thr Leu Phe Leu Leu Ala Gly Phe Val Ser Leu Phe Arg Ile  
 195 200 205  
 Arg Ser Val Ile Lys Thr Gln Gly Thr Asn Thr Ser Lys Leu Glu Lys  
 210 215 220  
 Leu Met Val Arg Ile Gly Val Phe Ser Leu Leu Tyr Thr Val Pro Ala  
 225 230 235 240  
 Leu Ile Val Ile Ala Cys Tyr Phe Tyr Glu Gln Ala Asn Arg Asp Glu  
 245 250 255  
 Trp Glu Arg Ser Trp Leu Asp Cys Ile Cys Cys Gln Tyr Gln Ile Pro  
 260 265 270  
 Cys Pro Tyr Lys Asp Lys Ser Ser Asp Pro Glu Ala Arg Pro Pro Leu  
 275 280 285  
 Ala Val Phe Met Leu Lys Tyr Phe Met Ser Leu Val Val Gly Ile Thr  
 290 295 300  
 Ser Gly Val Trp Val Trp Ser Lys Lys Thr Leu Glu Ser Trp Arg Arg  
 305 310 315 320  
 Phe Phe

<210> 306

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:consensus  
sequence

<400> 306

Arg Cys Glu Pro Ile Thr Leu Pro Leu Cys Lys Asp Leu Gly Tyr Asn  
1 5 10 15

Leu Thr Ser Met Pro Asn Leu Leu Gly His Thr Thr Gln Glu Ala  
20 25 30

Gly Leu Glu Leu Ser Gln Phe Tyr Pro Leu Leu Asn Val Gln Cys Ser  
35 40 45

Pro	Asp	Leu	Arg	Phe	Phe	Leu	Cys	Ser	Val	Tyr	Ala	Pro	Val	Cys	Thr
50						55					60				
Glu	Asp	Leu	Pro	Glu	Pro	Ile	Leu	Pro	Cys	Arg	Ser	Leu	Cys	Glu	Ala
65					70				75					80	
Ala	Arg	Glu	Gly	Cys	Glu	Pro	Leu	Met	Glu	Lys	Phe	Gly	Phe	Gly	Trp
			85						90					95	
Pro	Glu	Phe	Leu	Arg	Cys	Asp	Arg	Phe	Pro	Val	Gln	Asn	Glu	Leu	Cys
		100						105					110		
Met	Asp	Pro	Val	Pro											
		115													